

EXHIBIT A

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PROFESSIONAL EXPERIENCE

Director, Materials Science and Engineering Program, 7/10 - present
James and Catherine Patten Endowed Chair of Chemical and Biological Engineering, 7/07 – present
Associate Dean for Research, College of Engineering and Applied Science, 8/07 – 7/09
Associate Member, University of Colorado Cancer Center, 2007 - present
Mel and Virginia Clark Professor of Chemical and Biological Engineering, University of Colorado, 7/05 – 6/07
Department Chair, Chemical and Biological Engineering, 8/2003 – 6/07 and 7/11 – 6/12
Courtesy Professor, Chemistry and Biochemistry, University of Colorado, 8/2003 – present
Clinical Professor of Dentistry, University of Colorado, Health Sciences Center, 1/01 – present
Co-Director, Industry/University Cooperative Research Center for Fundamentals and Applications of Photopolymerizations, 1/2000 – present
Gillespie Professor, Chemical and Biological Engineering, University of Colorado, 8/99 – 7/05
Associate Professor, Chemical Engineering, University of Colorado, 8/95 – 8/99
Assistant Professor, Chemical Engineering, University of Colorado, 1/92 – 8/95

EDUCATION

Ph.D. in Chemical Engineering, August 1991, Purdue University
B.S. in Chemical Engineering (with Honors), May 1988, Purdue University

HONORS AND AWARDS

American Institute of Chemical Engineers Professional Progress Award for Outstanding Progress in Chemical Engineering, 2011
American Institute of Chemical Engineering Materials Engineering and Science Division C.M.A. Stine Award, 2009
Academic Life Teaching Award, Committee on Learning and Academic Support Services, Univ. of Colorado, 2008
American Chemical Society, Div. of Polymeric Mtls Science and Engr Cooperative Research Award, 2007
American Institute of Chemical Engineers R.H. Wilhem Award, 2006
University of Colorado Faculty Fellowship, 2005-06
Society for Biomaterials Clemson University Award for Contributions to the Literature, 2005
College of Engineering Max S. Peters Outstanding Service Award, 2004
University of Colorado Technology Transfer Office Physical Sciences Inventor of the Year, 2003
College of Engineering John and Mercedes Peebles Teaching Innovation Award, 2002
Boulder Faculty Assembly Award for Excellence in Research, Scholarly, and Creative Work, 2002
Department of Chemical Engineering Outstanding Undergraduate Teaching Award, 2002
American Institute of Chemical Engineers Allan P. Colburn Award, 2001
American Society of Engineering Education Curtis W. McGraw Award, 2000
Fellow, American Institute of Medical and Biological Engineers, 1999
Alfred P. Sloan Research Fellow, 1998 - 2000
Materials Research Society Outstanding Young Investigator Award, 1997
Camille Dreyfus Teacher-Scholar Award, 1996
National Institutes of Health FIRST Award, 1995 - 2000
University of Colorado Outstanding Faculty Graduate Advisor, 1995
National Science Foundation Presidential Faculty Fellowship, 1994 - 1999
Department of Chemical Engineering Outstanding Graduate Teaching Award, 1994
American Society of Engineering Education Rocky Mountain Section Dow Outstanding New Faculty Award, 1994
American Chemical Society Unilever Award for the Outstanding Graduate Research in Polymer Chemistry, 1993

PUBLICATIONS

1. H.Y. Park, C.J. Kloxin, A.S. Abuelyaman, J.D. Oxman, and C.N. Bowman, "Stress relaxation via addition-fragmentation chain transfer in high T_g , high conversion methacrylate-based systems," *Macromolecules*, In Press - Available On-line.
2. H.Y. Park, C.J. Kloxin, M.F. Fordney, and C.N. Bowman, "Stress Reduction and T_g Enhancement in Ternary Thiol-Yne-Methacrylate Systems via Addition-Fragmentation Chain Transfer," *Macromolecules*, In Press - Available On-line.
3. S. Ye, A. Setareh, I.R. Smith, N.B. Cramer, J.W. Stansbury, and C.N. Bowman, "Using Hyperbranched Oligomer Functionalized Glass Fillers to Reduce Shrinkage Stress," *Dental Materials*, In Press - Available On-line.
4. H.Y. Park, C.J. Kloxin, A.S. Abuelyaman, J.D. Oxman, and C.N. Bowman, "Novel Dental Restorative Materials having Low Polymerization Shrinkage Stress via Stress Relaxation by Addition-Fragmentation Chain Transfer," *Dental Materials*, In Press - Available On-line.
5. H.Y. Park, C.J. Kloxin, M.F. Fordney, and C.N. Bowman, "Stress Relaxation of Trithiocarbonate-Based Dental Composites," *Dental Materials*, In Press - Available On-line.
6. D.K. Leung and C.N. Bowman, "Reducing Shrinkage Stress of Dimethacrylate Networks by Reversible Addition-Fragmentation Chain Transfer," *Macromolecular Chemistry and Physics*, 213, 198- 204 (2012).
7. B.J. Berron, A.M. May, Z. Zheng, V. Balasubramaniam, and C.N. Bowman, "Antigen-responsive Microfluidic Valves for Single Use Diagnostics," *Lab on a Chip*, 12, 708-710 (2012).
8. C.N. Bowman and C.J. Kloxin, "Covalent Adaptable Networks: Incorporation of Reversible Bond Structures in Crosslinked Polymer Networks ," *Angewandte Chemie – International Edition*, 51, 4272-4274 (2012).
9. D.P. Nair, N.B. Cramer, M.K. McBride, J.C. Gaipa, R. Shandas, and C.N. Bowman, "Enhanced Two-Stage Reactive Polymer Network Forming Systems," *Polymer*, 53, 2429 – 2434 (2012).
10. D.P. Nair, N.B. Cramer, R. Shandas, and C.N. Bowman, "Two Stage Reactive Polymer Network Forming Systems," *Advanced Functional Materials*, 22, 1502-1510 (2012).
11. S.L. Hume, S.M. Hoyt, J.S. Walker, B. Sridhar, J.F. Ashley, C.N. Bowman, and S.J. Bryant. Alignment of Multi-Layered Muscle Cells within 3D Hydrogel Macrochannels. *Acta Biomaterialia*. 8, 2193 – 2202 (2012).
12. B.J. Adzima, Y. Tao, C.J. Kloxin, C. DeForest, K.S. Anseth, and C.N. Bowman, "Spatial and Temporal Control of the Copper Catalyzed Alkyne Azide Cycloaddition Reaction by Photoinitiated Cu(II) Reduction," *Nature Chemistry*, 3, 256-259 (2011).
13. C.J. Kloxin, T.F. Scott, H.Y. Park, and C.N. Bowman, "Mechanopatterning on a Photoresponsive Elastomer," *Advanced Materials*, 23, 1977 (2011).
14. S. Ye, N.B. Cramer, I.R. Smith, K.R. Voigt and C.N. Bowman, "Reaction Kinetics and Reduced Shrinkage Stress of Thiol-Yne-Methacrylate and Thiol-Yne-Acrylate Ternary Systems," *Macromolecules*, 44, 9084 – 9090 (2011).
15. K.M. Schreck, D. Leung, and C.N. Bowman, "Hybrid Organic/Inorganic Thiol-Ene-Based Photopolymerized Networks," *Macromolecules*, 44, 7520-7529 (2011).
16. S. Ye, N.B. Cramer, and C.N. Bowman, "Relationship Between Glass Transition Temperature and Polymerization Temperature for Crosslinked Photopolymers," *Macromolecules*, 44, 490-494 (2011).
17. S. Ye, N.B. Cramer, B.E. Stevens, R.L. Sani, and C.N. Bowman, "Induction Curing of Thiol-Acrylate and Thiol-Ene Composite Systems," *Macromolecules*, 44, 4988-4996 (2011).

18. B.D. Fairbanks, S.P. Singh, C.N. Bowman, and K.S. Anseth, "Photodegradable, Photoadaptable Hydrogels via Radical-mediated Disulfide Fragmentation Reaction," *Macromolecules*, *44*, 2444-2450 (2011).
19. T.F. Scott, C.J. Kloxin, D.L. Forman, R.R. McLeod, and C.N. Bowman, "Principles of Voxel Refinement in Optical Direct Write Lithography," *Journal of Materials Chemistry*, *21*, 14150-14155 (2011).
20. J.F. Ashley, N.B. Cramer, R.H. Davis, and C.N. Bowman, "Soft-lithography Fabrication of Microfluidic Features using Thiol-ene Formulations," *Lab-on-a-Chip*, *11*, 2772-2778 (2011).
21. P.S. Hume, C.N. Bowman, and K.S. Anseth, "Functionalized PEG Hydrogels through Reactive Dip-coating for the Formation of Immunoactive Barriers," *Biomaterials*, *32*, 6204-6212 (2011).
22. R.J. Sheridan, B.J. Adzima, and C.N. Bowman, "Temperature Dependent Stress Relaxation in a Model Diels-Alder Network," *Australian Journal of Chemistry*, *64*, 1094-1099 (2011).
23. C.M. Moorhoff, W.D. Cook, F. Chen, D. Nghiem, C. Braybrook, S.H. Thang, J.Z. Sun, T.F. Scott, and C.N. Bowman, "Synthesis of Acyclic, Symmetrical 3,3'-Allyl Dithioethers, from the Alkylation of 3-Mercapto-1-mercantomethylprop-1-ene in the Presence of Sodium Hydride," *Australian Journal of Chemistry*, *64*, 1083-1093 (2011).
24. B.J. Berron, L.M. Johnson, X. Ba, J.D. McCall, N.J. Alvey, K.S. Anseth, and C.N. Bowman, "Glucose Oxidase-Mediated Polymerization as a Platform for Dual-Mode Signal Amplification and Biodetection," *Biotechnology and Bioengineering*, *108*, 1521-1528 (2011).
25. J. Morrill, J.D. Biggs, C.N. Bowman, and J.W. Stansbury, "Development of Quantitative Structure Activity Relationships for Explanatory Modeling of Fast Reacting (Meth)Acrylate Monomers Bearing Novel Functionality," *J. Molecular Graphics and Modelling*, *29*, 763-772 (2011).
26. N.B. Cramer, J.W. Stansbury and C.N. Bowman, "Recent Advances and Developments in Composite Dental Restorative Materials," *Journal of Dental Research*, *90*, 402-416 (2011).
27. J.E. Boulden, N.B. Cramer, K.M. Schreck, C.L. Couch, C. Bracho-Troconis, J.W. Stansbury, and C.N. Bowman, "Thiol-ene-methacrylate Composites as Dental Restorative Materials," *Dental Materials*, *27*, 267-272 (2011).
28. H.J. Avens and C.N. Bowman, "Fluorescent Polymeric Nanocomposite Films Generated by Surface-Mediated Photoinitiation of Polymerization," *J. Nanoparticle Research*, *13*, 341-346 (2011).
29. H.J. Avens, B.J. Berron, A.M. May, K. Voight, G.J. Sedorf, V. Balasubramaniam, and C.N. Bowman, "Sensitive Immunofluorescent Staining of Cells via Generation of Fluorescent Nanoscale Polymer Films in Response to Biorecognition," *Journal of Histochemistry and Cytochemistry*, *59*, 76-87 (2011).
30. H.Y. Park, C.J. Kloxin, T.F. Scott, and C.N. Bowman, "Stress Relaxation by Addition Fragmentation Chain Transfer in Highly Crosslinked Thiol-Yne Networks," *Macromolecules*, *43*, 10188-10190 (2010).
31. R. Shenoy and C.N. Bowman, "Mechanism and Implementation of Oxygen Inhibition Suppression in Photopolymerizations by Competitive Photoactivation of a Singlet Oxygen Generator," *Macromolecules*, *43*, 7964 – 7970 (2010).
32. J.W. Chan, J. Shin, C.N. Bowman, C.E. Hoyle, and A.B. Lowe, "Synthesis, Thiol-Yne Click Photopolymerization and Physical Properties of Networks Derived from Multifunctional Ynes," *Macromolecules*, *43*, 4937 – 4942 (2010).
33. D.P. Nair, N.B. Cramer, T.F. Scott, C.N. Bowman and R. Shandas, "Photopolymerized Thiol-Ene Systems as Shape Memory Polymers," *Polymer*, *51*, 4383 – 4389 (2010).
34. H. Matsushima, J. Shin, C.N. Bowman and C.E. Hoyle, "Thiol-Isocyanate-Acrylate Ternary Networks by Selective Thiol-Click Chemistry," *Journal of Polymer Science, Polymer Chemistry*, *48*, 3255 – 3264 (2010).

35. P.M. Johnson, J.W. Stansbury, and C.N. Bowman, "Optimization of Multicomponent Photopolymer Formulations Using High-Throughput Analysis and Kinetic Modeling", *AIChE Journal*, 56, 1262-1269 (2010).
36. A. Kloxin, C.J. Kloxin, C.N. Bowman, and K.S. Anseth, "Mechanical Properties of Cellularly Responsive Hydrogels and their Experimental Determination," *Advanced Materials*, 22, 3484-3494 (2010).
37. J. Shin, H. Matsushima, C.M. Comer, C.N. Bowman, and C.E. Hoyle, "Thiol-Isocyanate-Ene Ternary Networks by Sequential and Simultaneous Thiol Click Reactions" *Chemistry of Materials*, 22, 2616-2625 (2010).
38. M.C. Lawson, C.N. Bowman, and K.S. Anseth, "Inhibition of *S. epidermidis* Biofilms using Polymerizable Vancomycin Derivatives," *Clinical Orthopaedics and Related Research*, 468, 2081-2091 (2010).
39. A.B. Lowe, C.E. Hoyle, and C.N. Bowman, "Thiol-Yne Click Chemistry: A Powerful and Versatile Methodology for Materials Chemistry," *Journal of Materials Chemistry*, 20, 4745-4750 (2010).
40. C.J. Kloxin, T.F. Scott, B. Adzima, and C.N. Bowman, "Covalent Adaptable Networks (CANs): A Unique Paradigm in Crosslinked Polymers," *Macromolecules*, 43, 2643-2653 (2010).
41. L.M. Johnson, R.R. Hansen, M. Urban, R. Kuchta and C.N. Bowman, "Photoinitiator Nucleotide for Quantifying Nucleic Acid Hybridization", *Biomacromolecules*, 11, 1133-1138 (2010).
42. B. Adzima, C.J. Kloxin, and C.N. Bowman, "Externally Triggered Healing of a Thermoreversible Covalent Network via Self-limited Hysteresis Heating," *Advanced Materials*, 22, 2784-2787 (2010).
43. H.Y. Park, C.J. Kloxin, T.F. Scott, and C.N. Bowman, "Covalent Adaptable Networks as Dental Restorative Resins: Stress Relaxation by Addition-fragmentation Chain Transfer in Allyl Sulfide-containing Resins," *Dental Materials*, 26, 1010-1016 (2010).
44. C.E. Hoyle, A.B. Lowe, and C.N. Bowman, "Thiol-click Chemistry: A Multifaceted Toolbox for Small Molecular and Polymer Synthesis," *Chemical Society Reviews*, 39, 1355-1387 (2010).
45. C.E. Hoyle and C.N. Bowman, "Thiol-Ene Click Chemistry," *Angewandte Chemie International Edition*, 49, 1540-1573 (2010).
46. L.M. Johnson, C.A. DeForest, A. Pendurti, K.S. Anseth, and C.N. Bowman, "Formation of Three-dimensional Hydrogel Multilayers using Enzyme-mediated Redox Chain Initiation," *Appl. Mat. & Interfaces*, 2, 1963-1972 (2010).
47. W.D. Cook, F. Chen, D. Nghiem, T.F. Scott, L. LePluart, and C.N. Bowman, "Photo-plasticity in Thiol-ene Network Polymers – A Review," *PNG2008 Macromolecular Symposia*, 292-292, 50-65 (2010).
48. B.D. Fairbanks, E.A. Sims, K.S. Anseth, and C.N. Bowman, "Reaction Rates and Mechanisms for Radical, Photoinitiated Addition of Thiols to Alkynes, and Implications for Thiol-Yne Photopolymerizations and Click Reactions," *Macromolecules*, 43, 4113-4119 (2010).
49. N.B. Cramer, C.A. Couch, K.M. Schreck, J.E. Boulden, R. Wydra, J.W. Stansbury, and C.N. Bowman, "Properties of Methacrylate-Thiol-Ene Formulations as Dental Restorative Materials," *Dental Materials*, 26, 799-806 (2010).
50. H.M. Avens and C.N. Bowman, "Development of Fluorescent Polymerization-based Signal Amplification for Sensitive and Non-enzymatic Biodetection in Antibody Microarrays," *Acta Biomaterialia*, 6, 83-89 (2010).
51. N.B. Cramer, C.L. Couch, K.M. Schreck, J.A. Carioscia, J.E. Boulden, J.W. Stansbury and C.N. Bowman, "Investigation of Thiol-ene and Thiol-ene-methacrylate Based Resins as Dental Restorative Materials," *Dental Materials*, 26, 21-18 (2010).
52. T.F. Scott, B.A. Kowalski, A.C. Sullivan, C.N. Bowman, R.R. McLeod, "Two-color Single-photon Photoinitiation and Photoinhibition for Subdiffraction Photolithography," *Science*, 324, 913-917 (2009).

53. B.D. Fairbanks, M.P. Schwartz, A.E. Halevi, C.R. Nuttelman, C.N. Bowman, and K.S. Anseth, "A Versatile Synthetic Extracellular Matrix Mimic via Thiol-Norbornene Photopolymerization," *Advanced Materials*, **21**, 5005-5010 (2009).
54. H.D. Sikes, R. Jenison, and C.N. Bowman, "Antigen Detection using Polymerization-based Amplification," *Lab on a Chip*, **9**, 653-656 (2009). (Cover Illustration from This Article)
55. C.J. Kloxin, T. Scott, and C.N. Bowman, "Stress Relaxation via Addition-Fragmentation Chain Transfer in a Thiol-ene Photopolymerization," *Macromolecules*, **42**, 2551-2556 (2009).
56. K.A. Berchtold, B. Hacıoglu, J. Nie, N.B. Cramer, J.W. Stansbury, and C.N. Bowman, "Rapid Solid-State Photopolymerization of Cyclic Acetal Containing Acrylates," *Macromolecules*, **42**, 2433-2437 (2009).
57. B. Fairbanks, T. Scott, C. Kloxin, K. Anseth, and C.N. Bowman, "Thiol-Yne Photopolymerizations: Novel Mechanism, Kinetics and Step Growth Formation of Highly Crosslinked Networks," *Macromolecules*, **42**, 211-217 (2009).
58. L.M. Johnson, B. Fairbanks, K.S. Anseth, and C.N. Bowman, "Enzyme-Mediated Redox Initiation for Hydrogel Generation and Cellular Encapsulation," *Biomacromolecules*, **10**, 3114-3121 (2009).
59. M.C. Lawson, R. Shoemaker, K.B. Hoth, C.N. Bowman, and K.S. Anseth, "Polymerizable Vancomycin Derivatives for Bactericidal Biomaterial Surface Modification: Structure-Function Evaluation," *Biomacromolecules*, **10**, 2221-2234 (2009).
60. B.D. Fairbanks, M.P. Schwartz, C.N. Bowman and K.S. Anseth, "Photoinitiated Polymerization of PEG-diacrylate with Lithium Phenyl-2,4,6-trimethylbenzoylphosphinate: Polymerization Rate and Cytocompatibility," *Biomaterials*, **30**, 6702-6707 (2009).
61. H.J. Avens and C.N. Bowman, "Mechanism of Cyclic Dye Regeneration During Eosin-Sensitized Photoinitiation in the Presence of Polymerization Inhibitors," *Journal of Polymer Science, Polymer Chemistry*, **47**, 6083-6094 (2009).
62. H. Kilambi, S.K. Reddy, L. Schneidewind, J.W. Stansbury, and C.N. Bowman, "Influence of the Secondary Functionality on the Radical-Vinyl Chemistry of Highly Reactive Monoacrylates," *Journal of Polymer Science Part A: Polymer Chemistry*, **47**, 4859-4870 (2009).

63. T.Y. Lee, N.B. Cramer, C.E. Hoyle, J.W. Stansbury, and C.N. Bowman, "(Meth)Acrylate Vinyl Ester Hybrid Polymerization," *J. Polymer Science Part A: Polymer Chemistry*, 47, 2509-2517 (2009).
64. H.Kilambi, N.B.Cramer, L.H. Schneidewind, P. Shah, J.W. Stansbury, and C.N. Bowman, "Evaluation of Highly Reactive Mono-(meth)acrylates as Reactive Diluents for Dimethacrylate-based Composites," *Dental Materials*, 25, 33-38 (2009).
65. L.M. Johnson, H.J. Avens, R.R. Hansen, H.L. Sewell, and C.N. Bowman, "Characterization of the Assaying Methods in Polymerization-based Amplification of Surface Biomarkers," *Australian Journal of Chemistry*, 62, 877-884 (2009).
66. P.M. Johnson, J.W. Stansbury, and C.N. Bowman, "FTIR Microscopy for Kinetic Measurements in High-Throughput photopolymerization Experimental Design and Application," *Macromolecular Reaction Engineering*, 3, 522-528 (2009).
67. R. Hansen, L.M. Johnson, and C.N. Bowman, "Visual, Base-specific Detection of Nucleic Acid Hybridization Using Polymerization-based Amplification," *Analytical Biochemistry*, 386, 285-287 (2009).
68. K.N. Long, T.F. Scott, H.J. Qi, C.N. Bowman, M.L. Dunn, "Photomechanics of Light Activated Polymers," *Journal of Mechanics and Physics of Solids*, 57, 1103-1121 (2009).
69. H.D. Sikes, R.R. Hansen, L.M. Johnson, R. Jenison, J.W. Birks, K.L. Rowlen, and C.N. Bowman, "Using Polymeric Materials to Generate an Amplified Response to Molecular Recognition Events," *Nature Materials*, 7, 52-56 (2008).
70. V.S. Khire, Y. Yi, N.A. Clark, and C.N. Bowman, "Formation and Surface Modification of Nanopatterned Thiol-ene Substrates Using Step and Flash Imprint Lithography," *Advanced Materials*, 20, 3308-3313 (2008).
71. C.N. Bowman and C.J. Kloxin, "Towards an Enhanced Understanding and Implementation of Photopolymerization Reactions," *AIChE J.*, 54, 2775-2795 (2008).
72. B. Adzima, H. Aguirre, C. Kloxin, T. Scott, and C.N. Bowman, "Rheological and Chemical Analysis of Reverse Gelation in a Covalently Crosslinked Diels-Alder Polymer," *Macromolecules*, 41, 9112-9117 (2008).
73. K.A. Berchtold, J. Nie, J.W. Stansbury, and C.N. Bowman, "Reactivity of Monovinyl (Meth)Acrylates Containing Cyclic Carbonates," *Macromolecules*, 41, 9035-9043 (2008).
74. V.S. Khire, T.Y. Lee, C.N. Bowman, "Synthesis, Characterization and Cleavage of Surface-bound Linear Polymers Formed Using Thiol-ene Photopolymerizations," *Macromolecules*, 41, 7440-7447 (2008).
75. T. Scott, C. Kloxin, R. Draughon, and C.N. Bowman, "Non-Classical Dependence of Polymerization Rate on Initiation Rate Observed in Thiol-Ene Photopolymerizations," *Macromolecules*, 41, 2987-2989 (2008).
76. P. Johnson, J.W. Stansbury, and C.N. Bowman, "Kinetic Modeling of a Comonomer Photopolymerization System Using High Throughput Conversion Data," *Macromolecules*, 41, 230-237 (2008).
77. R.R. Hansen, H.D. Sikes, and C.N. Bowman, "Visual Detection of Labeled Oligonucleotides Using Visible-Light-Polymerization-Based Amplification," *Biomacromolecules* 9, 355-362 (2008).
78. V.S. Khire, A. Kloxin, C. Couch, K.S. Anseth, and C.N. Bowman, "Synthesis, Characterization and Cleavage of Linear Polymers Attached to Silica Nanoparticles Formed Using Thiol-acrylate Conjugate Addition Reactions," *J. Polymer Science Part A: Polymer Chemistry*, 46, 6896-6906 (2008).
79. H. Kilambi, J. Stansbury, and C.N. Bowman, "Enhanced Reactivity of Monovinyl Acrylates Characterized by Secondary Functionalities Towards Photopolymerization and Michael Addition: Contribution of Intramolecular Effects," *J. Polymer Science Part A: Polymer Chemistry*, 46, 3452-3458 (2008).

80. P.M. Johnson, J.W. Stansbury, and C.N. Bowman, "High-throughput Kinetic Analysis of Acrylate and Thiol-ene Photopolymerization Using Temperature and Exposure Time Gradients," *J. Polymer Science Part A: Polymer Chemistry*, *46*, 1502-1509 (2008).
81. H.M. Simms, C.N. Bowman, and K.S. Anseth, "Using Living Radical Polymerization to Enable Facile Incorporation of Materials in Microfluidic Cell Culture Devices," *Biomaterials*, *29*, 2228-2236 (2008).
82. J.W. Stansbury, C.N. Bowman, and S.M. , "Shining a Light on Dental Composite Restoratives," *Physics Today*, April 2008, 82-83 (2008).
83. R.R. Hansen and C.N. Bowman, "Quantitative Evaluation of Oligonucleotide Surface Concentrations Using Polymerization-based Amplification," *Anal. Bioanal. Chemistry*, *392*, 167-175 (2008).
84. H.J. Avens, T.J.Randle, and C.N. Bowman, "Polymerization Behavior and Polymer Properties of Eosin-Mediated Surface Modification Reactions," *Polymer*, *49*, 4762-4768 (2008).
85. N.B. Cramer, C.P. O'Brien, and C.N. Bowman, "Mechanisms, Polymerization Rate Scaling, and Oxygen Inhibition with an Ultra-Rapid Monovinyl Urethane Acrylate," *Polymer*, *49*, 4756-4761 (2008).
86. A.E. Rydholm, N.L. Held, D.S.W. Benoit, C.N. Bowman, and K.S. Anseth, "Modifying Network Chemistry in Thiol-acrylate Photopolymers through Post-Polymerization Functionalization to Control Cell-material Interactions," *J. Biomedical Materials Research: Part A*, *86A*, 23 – 30 (2008).
87. Y.W. Yi, J.E. MacLennan, N.A. Clark, V. Khire, and C.N. Bowman, "Organization of Liquid Crystals on Sub-micron Scale Topographic Patterns with Four-fold Symmetry prepared by Thiol-ene Photopolymerization-based Nanoimprint Lithography," *J. Appl. Physics*, *103*, 093518-1-093518-6 (2008). (Article also selected to appear in the May 19, 2008 issue of the *Virtual Journal of Nanoscale Science & Technology*.)
88. W.D. Cook, S. Chausson, F. Chen, L.L. Pluart, C.N. Bowman, and T.F. Scott, "Photo-polymerization Kinetics, Photo-rheology and Photo-plasticity of Thiol-ene-allylic Sulfide Networks," *Polymer International*, *57*, 469-478 (2008).
89. H. Kilambi, S.K. Reddy, L. Schneidewind, T.Y. Lee, J.W. Stansbury, and C.N. Bowman, "Design, Development and Evaluation of Monovinyl Acrylates Characterized by Secondary Functionalities as Reactive Diluents to Diacrylates," *Macromolecules* *40*, 6112-6118 (2007).
90. H. Kilambi, S.K. Reddy, and C.N. Bowman, "Kinetic and Mechanistic Studies of Photopolymerizations of Acrylates in the Presence of Iniferters," *Macromolecules* *40*, 6131-6135 (2007).
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92. H. Kilambi, J.W. Stansbury, and C.N. Bowman, "Deconvoluting the Impact of Inter-molecular and Intra-molecular Interactions on the Polymerization Kinetics of Ultra-rapid Mono(meth)acrylates," *Macromolecules* *40*, 47-54 (2007).
93. T.Y. Lee and C.N. Bowman, "Thiol-Allyl Ether-Methacrylate Ternary Systems I. Polymerization Mechanism," *Macromolecules*, *40*, 1466-1472 (2007).
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FUNDING OBTAINED

Collaboration in the Development of Novel Polymerization Enhanced Immunofluorescence, NIH R21, received a 3.0% score (will be funded), \$275,000 direct costs for two years (PI with Balasubramaniam and Berron, co-PIs)

Dual Cure Polymer Systems for Biomedical Applications, Bioscience Discovery Grant Program, \$200,000 funding committed start date in 2011

Oxygen Mediated Initiation of Thiol-ene Adhesives and Sealants, National Institutes of Health Exploratory/Development Research Grant Award (R21), \$275,000 direct (NIH Award Number 21EB011761 (NIBIB), PI with T.F. Scott, co-PI)

Osteogenic Hydrogel Niches to Promote hMSC Migration and Differentiation, NIH R01, NIDCR, 12/10-11/15, approximately \$1,625,000 total costs (co-PI with K. Anseth, PI)

Improved Resin Bonded Dental Restoratives Based on Nanogel-modified Adhesives, NIH/NIDCR Challenge Grant, 10/09-9/11, \$1,000,000 (1RC1DE020480-01, co-PI with J.W. Stansbury, PI)

Reaction Engineering of Covalent Adaptable Networks, National Science Foundation, 9/09 – 8/12, \$275,233 (PI).

Development of Novel Thiol-Ene Methacrylate Composites for Dental Restorative Materials, NIH, 8/11/08-6/30/12, \$1,431,416 (PI, Jeffrey Stansbury, co-PI)

Novel Crosslinked Polymers for Dental Restorations, National Institutes of Health, 4/1/06 – 3/31/11, \$1,350,000, (PI with Prof. Jeffrey Stansbury, co-PI)

A Graduate Program in Micro- and Nanostructured Materials, U.S. Department of Education, 9/1/06 – 8/31/10, \$506,688 (PI with others as co-PI)

GOALI: Advanced Thiol-Ene Photopolymerizations, National Science Foundation, 9/06 – 9/10, \$294,375 (PI with John Woods, co-PI)

Development of Novel Dental Resins and Composites, Confi-Dental Products, 3/15/05-2/28/2010, \$384,000 (PI, annual funding renewal pending)

A National Science Foundation Industry / University Cooperative Research Center for Fundamentals and Applications of Photopolymerizations, In addition to NSF support numerous Companies Provide \$40,000 per year, Total annual funding of approximately \$500,000, 1/1/2000 - present (co-Director with Prof. Alec Scranton, also co-Director)

High Amplification Detection of Genetic Cancer Markers, NIH 1R21 CA127884-01A1 Grant, 1/1/08-12/31/09, \$305,460 (PI)

Redox-Initiated Radical Chain Polymerization for the Detection and Amplification of Biological Recognition Events, University of Colorado Technology Transfer Office, \$192,000, 1/1/07 – 6/30/08 (PI)

Redox-Initiated Radical Chain Polymerization for the Detection and Amplification of Biological Recognition Events, University of Colorado Technology Transfer Office, \$25,000, 6/1/06 – 9/30/06 (PI)

Methacrylate Monomers for Use in Dental Restoratives – Fellowship, HHS NIDCR, 4/1/06 – 3/31/07, \$31,184 (Co-PI with Michael McKittrick, PI)

Thiol-Ene Polymers as Dental Restorative Materials – Fellowship, 9/1/05 – 8/31/07, \$90,824 (Co-PI with Neil Cramer, PI)

A MRSEC for Study of Ferroelectric Liquid Crystals, National Science Foundation, 9/02-8/08, \$3,100,000 (co-PI with Prof. Noel Clark, PI, and David Walba, co-PI)

ACT/SGER: Technology for Field Portable Biosensors, National Science Foundation, 8/04 – 7/05, \$131,088 (PI with Prof. Kathy Rowlen, co-PI)

Development of Advanced Detection Technologies for Biochips, National Institutes of Health through InDevR, LLC, 12/04 – 11/06, \$346,072 (CU/CNB portion, co-PI with Prof. Kathy Rowlen, PI)

Parallel Fabrication Equipment for Microfluidic Device Processing, Air Force Office of Scientific Research, 4/03-3/04, \$200,000 (PI with Prof. Anseth and Davis, co-PIs)

Structure-Reactivity-Performance Interrelationships of Novel Photopolymerizable Monomers, Surface Specialties UCB, 12/03-11/06, \$273,000 (PI)

Graduate Program in Biomolecular Engineering, U.S. Dept of Education, 8/04-8/07, \$622,665 (PI with Kristi Anseth, Rob Davis and Dhinakar Kompala as co-PIs)

Photopolymerized Gels for Cartilage Tissue Engineering, National Institutes of Health, 8/03-7/08, \$766,308, (co-PI with Kristi Anseth, PI)

A Novel Polymer-Derived-nanoCeramic for Ultrahigh Temperature MEMS Micro-igniter/Sensor, USDOE/NETL, 10/1/03-6/30/04, \$56,501 (CNCB's portion, co-PI with R. Raj, PI)

Graduate Program in Functional Materials, U.S. Dept of Education, 9/03-8/06, \$516,672 (PI with Kristi Anseth, Rob Davis and Dan Schwartz as co-PIs)

Development of a Parallel Evaluation Scheme for UV Monomer Formulations, Photopolymerizations IUCRC, 7/1/2002 – 6/1/2006, \$120,000 (PI with Prof. Jeffrey Stansbury, co-PI)

Low Shrinkage Dental Resins from SOC Oligomers, National Institutes of Health, 5/1/02 – 4/30/06, \$ 900,000 (co-PI with Prof. Jeffrey Stansbury, PI)

Biofluidic Transport and Molecular Recognition in Polymeric Microdevices, DARPA, 1/02 – 2/05, \$1,100,000 (co-PI with Prof. Robert Davis, PI, and Prof. Kristi Anseth, co-PI)

Novel Crosslinked Polymers for Dental Restorations, National Institutes of Health, 4/1/01 – 3/31/06, \$1,400,000, (PI with Prof. Jeffrey Stansbury, co-PI)

A Graduate Program in Macromolecular Chemistry and Engineering, U.S. Department of Education Graduate Assistance in Areas of National Need Program, 8/15/00 - 8/14/03, \$333,096 (PI with Prof. Robert Davis and Kristi Anseth, co-PIs)

Novel Microstructures for Polymer-Liquid Crystal Composite Materials, (with M. Glaser, PI and Noel Clark and Leo Radzihovsky, co-PIs), National Aeronautics and Space Administration, 2/1/00 – 10/31/03, \$184,100 (CU's subcontract amount)

Fundamental Understanding of the Role of Oxygen in Radical Photopolymerizations, Photopolymerizations IUCRC, 1/1/2001 – 12/31/2004, \$140,000 (PI with Prof. Alec Scranton, co-PI)

Development of Thiol-Ene Photopolymerizations, Photopolymerizations IUCRC and the National Science Foundation, 7/1/2001 – 6/30/2005, \$170,000 (PI with Prof. Charles E. Hoyle, co-PI)

Development of Novel Acrylic Monomers for Ultrarapid Polymerization and Enhanced Polymer Properties, Photopolymerizations IUCRC, 1/1/2000 – 12/31/2006, \$250,000

Comprehensive Modeling and Advanced Experimental Characterization of Photopolymerization Kinetics, Photopolymerizations IUCRC, 1/1/2000 – 12/31/2003, \$100,000

Living Radical Photopolymerizations for Network Analysis and Unique Surface Chemistry and Properties, Photopolymerizations IUCRC, 1/1/2000 – 12/31/2001, \$50,000 (PI with Prof. Kristi Anseth, co-PI)

MALDI-TOF MS Characterization of Crosslinked Degradable Networks, Photopolymerizations IUCRC, 1/1/2000 – 12/31/2000, \$25,000 (co-PI with Prof. Kristi Anseth, PI)

A Planning Grant for Establishing an IUCRC for Fundamentals and Applications of Photopolymerizations, National Science Foundation, 8/1/98 - 7/31/99, \$10,000, (PI with Prof. Kristi Anseth and Alec Scranton, co-PIs)

Membrane Modification by Photografting for Reduction of Adhesive Fouling, U.S. Bureau of Reclamation, 9/25/98 - 9/24/99, \$72,000 (PI with Prof. Robert Davis, co-PI)

Ferroelectric Liquid Crystals Materials Research Science and Engineering Center, National Science Foundation, 9/1/98 - 8/31/03, \$4,000,000 (co-PI with Prof. Noel Clark, PI).

Novel Tissue Engineering Matrices with Controlled Microstructure, National Institutes of Health, 9/1/98 - 6/15/01, \$500,000 (co-PI with Prof. Kristi Anseth, PI).

A Graduate Program in Chemical Engineering Separations, U.S. Department of Education Graduate Assistance in Areas of National Need Program, 8/15/98 - 8/14/01, \$375,000 (co-PI with Prof. Robert Davis, PI).

Sloan Research Fellowship, 5/1/98 - 4/30/02, \$35,000 Sloan Foundation

Development of an Interactive, Interdisciplinary Course on Polymer Engineering, Undergraduate Excellence Fund, University of Colorado, 5/1/97 - 4/30/98, \$26,000 (co-PI with Prof. Kristi Anseth).

Investigation of Composite Facilitated Transport Membranes for Separations of Hydrocarbons, National Science Foundation, 2/98 - 2/99, \$75,000 (co -PI with R.D. Noble, PI, and C.A. Koval, co-PI)

Camille Dreyfus Teacher-Scholar Award Program, Dreyfus Foundation, 9/1/96 - 8/31/01, \$60,000

Novel Water Pretreatment Systems with Reduced Fouling, U.S. Bureau of Reclamation, 10/1/96 - 9/30/97, \$75,000 (co-PI with Robert Davis as PI).

DuPont Award, 7/1/96 - 6/30/99, \$75,000, DuPont

Effects of Morphology and Thermodynamics on Ionic Transport in Facilitated Transport Membranes, 1/1/96 - 12/31/98, \$105,000, National Science Foundation Industrial/University Cooperative Research Center for Separations Using Thin Films (co-PI with Prof. Richard Noble).

Novel Crosslinked Polymers for Dental Restorations, 8/1/95-7/31/00, \$464,254, National Institutes of Health, FIRST Award

3M Untenured Faculty Grant, 4/15/95 - 4/14/98, \$45,000, The 3M Company

DuPont Award, 7/1/95 - 6/30/96, \$20,000, DuPont

Engineering Research Equipment: A FTIR Spectrometer Coupled with an Ultraviolet Light Source for Polymerization Reaction Engineering and Catalysis, 3/1/95 - 2/28/97, \$31,000, National Science Foundation (PI with co-PI Prof. John Falconer)

Presidential Faculty Fellowship Award, 10/1/94 - 9/30/00, \$500,000, National Science Foundation

Pseudocrown Ether Membranes for Adsorption and Separation, 1/1/95 - 12/31/97, \$105,000, National Science Foundation Industrial/University Cooperative Research Center for Separations Using Thin Films (PI with Alec Scranton, co-PI).

Prevention of Biofouling with Polyphosphazene Membranes, U.S. Army, Fort Belvoir, 6/1/94 - 5/31/97, \$120,000 (PI with Paul Todd, co-PI).

Improved Facilitated Transport Membranes for Enhanced Specificity on Hybrid Processes for Olefin Separations, 3/1/94 - 2/28/96, \$200,000, National Science Foundation (co-PI with PI Richard Noble and co-PI Carl Koval).
Improved Facilitated Transport Membranes for Enhanced Specificity on Hybrid Processes for Olefin Separations, 3/1/94 - 2/28/96, \$100,000, matching funds for NSF grant, Chevron Company (co-PI with PI Richard Noble and co-PI Carl Koval).

A Materials Research Group for Study of Ferroelectric Liquid Crystals, 10/1/93 - 9/30/97, \$176,000 (CNB's Portion), National Science Foundation (co-PI with Prof. Noel Clark, PI, and David Walba, co-PI)

A Fixed Site Carrier Membrane For Metals Extraction, 1/1/93 - 12/31/95, \$105,000, National Science Foundation Industrial/University Cooperative Research Center for Separations Using Thin Films (PI with Prof. Richard Noble, co-PI).

A Borate Exchange Membrane System, 1/1/93 - 12/31/95, \$90,000, National Science Foundation Industrial/University Cooperative Research Center for Separations Using Thin Films (co-PI with PI Paul Todd).

Modeling and Characterization of Chain Polymerization Reactions for Multifunctional Monomers, 6/15/92 - 6/14/95, \$100,000, National Science Foundation.

INVITED LECTURES

1. C.N. Bowman, "Photochemically and Thermally Triggered Covalent Adaptable Polymer Networks and Their Relevance to Coatings and Adhesives," Evonik Meets Science Conference, December 2011, Pittsburgh, PA.
- 2.
3. C.N. Bowman, "Thermoreversible Covalent Adaptable Networks," Thermosets 2011 Conference, September 2011, Berlin.
4. B. Adzima, C. Kloxin, T. Scott, and C.N. Bowman, "Photoclick: 4D Control of Polymer Network Formation, Modification and Properties via Click Reactions," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
5. B.J. Adzima, Y. Tao, C.J. Kloxin, C.A. DeForest, K.S. Anseth, and C.N. Bowman, "Click Reactions as Photopolymerizations: The Next Generation of Photopolymerizations," RadTech Asia 2011, June 2011, Yokohama, Japan.
6. C.N. Bowman, "Covalent Adaptable Networks: Photochemical and Thermal Control of Network Adaptability and Reformation in Polymeric Materials," *or* "Photoclick: Photochemical Initiation of Various Click Reactions and Their Applications in Materials Science," June 2011, 3M
7. C.N. Bowman, "Photoclick: Spatial and Temporal Control of the Alkyne-Azide Reaction," Keynote Speaker, May 2011, Second Hangzhou International Polymer Forum, Hangzhou, China.
8. C.N. Bowman, "Photochemically and Thermally Activated Covalent Adaptable Networks," January 2011, Vanderbilt University.
9. C.N. Bowman, B.J. Adzima, C.J. Kloxin, C. DeForest, and K.S. Anseth, "Photo-click: Photoinitiated Click Polymerizations," European Symposium on Photopolymer Science, December 2010, Mulhouse, France.
10. C.N. Bowman, "Polymerization Reactions to Enable Biodetection," CIMBPosium, University of Colorado at Boulder, November 2010.
11. C.N. Bowman, "Photoreversible Covalent Adaptable Networks," Polymer Networks Group Meeting, August 2010, Goslar, Germany.
12. C.N. Bowman, B.D. Fairbanks, N.B. Cramer, and K.S. Anseth, "Introduction to Thiol-ene and Thiol-yne Photopolymerization," 240th American Chemical Society National Meeting, August 2010, Boston, MA.
13. C.N. Bowman, "Thiol-ene photopolymerizations: Fundamentals and Practical Implementation," RadTech UV&EVB Tech Expo and Conference, May 2010, Baltimore, MD
14. C.N. Bowman, "Thiol-Ene Click Reactions," Charles Hoyle Symposium, April 2010, Hattiesburg, MS.
15. C.N. Bowman, "Photochemical and thermally Triggered Covalent Adaptable Networks," Sandia National labs, March 2010.
16. C.N. Bowman, "Photochemically and Thermally Triggered Covalent Adaptable Networks," University of Illinois, Urbana, February, 2010.
17. C.N. Bowman, "Polymerization Based Biodetection," University of Texas, Austin, February, 2010.
18. C.N. Bowman, "Photochemically and Thermally Triggered Covalent Adaptable Networks," Purdue University, January 2010.
19. B.D. Fairbanks, H. Park, C.J. Kloxin, T.F. Scott, K.S. Anseth, and C.N. Bowman, "Mechanism, Kinetics, and Highly Crosslinked Networks of Novel, Step-Growth Thiol-yne Photopolymerization," 11th Pacific Polymer Conference, Cairns, Australia, December 2009.

20. C.N. Bowman, Stress Relief During Photopolymerizations: A Novel Approach to Photopolymerize, Radically Mediated Covalent Adaptable Networks,” 16th Fusion UV Seminar, November, 2009, Osaka, Japan.
21. C.N. Bowman (for C.E. Hoyle), “New Advances in Thiol-ene Polymerization: Advanced Physical, Optical and Oxyten Barrier Properties,” 16th Fusion UV Seminar 2009, November, 2009, Osaka, Japan.
22. C.N. Bowman, “Stress Relief During Photopolymerizations: A Novel Approach to Photopolymerize, Radically Mediated Covalent Adaptable Networks,” 16th Fusion UV Seminar 2009, November, 2009, Tokyo, Japan.
23. C.N. Bowman (for C.E. Hoyle), “New Advances in Thiol-ene Polymerization: Advanced Physical, Optical and Oxyten Barrier Properties,” 16th Fusion UV Seminar 2009, November, 2009, Tokyo, Japan.
24. C.N. Bowman, B. Adzima, H. Park, C.J. Kloxin, and T.F. Scott, “Covalent Adaptable Networks for Smart Materials Applications,” Materials Research Society Fall Meeting, Boston, MA, November 2009.
25. C.N. Bowman, “Photopolymerizations and Their Application to Biodetection,” 2009 AIChE Annual Meeting, C.M.A. Stine Award Session, Nashville, TN, November 2009.
26. C.N. Bowman, “Novel Deverlopments and Applications of Photopolymerizations,” The University of Utah, September 2009.
27. C.N. Bowman, “Photopolymerization Fundamentals: Modeling and Experimental Characterization,” 238th ACS National Meeting, Washington, DC, August 2009.
28. C.N. Bowman, “Composite Dental Restorative Materials: Enhanced Control and Understanding of Formation-Structure-Property Relationships,” IADR General Session, Miami, FL, April, 2009.
29. C.N. Bowman, “Photoinduced Plasticity in Crosslinked Polymers,” MRS Spring Meeting, April 2009.
30. C.N. Bowman and V.S. Khire, “Nanopatterned Thiol-ene Substrates using Step and Flash Imprint Lithography,” 237th American Chemical Society National Meeting and Exposition, Salt Lake City, UT, March 2009.
31. C.N. Bowman, “Photochemical and Thermally Adaptable Networks” Monash University Department of Materials Science and Engineering, Melbourne, Australia, February, 2009.
32. H. Sikes, R. Hansen, L. Johnson, R. Shenoy, B. Berron, and C.N. Bowman, “Polymerization-Based Signal Amplification for Molecular Recognition,” Australian Colloid and Interface Scoiety Meeting, Adelaide, Australia February, 2009.
33. C.N. Bowman, “Novel Applications and Developments Utilizing Photopolymerizations,” University of Texas, Austin, TX, January 2009.
34. C.N. Bowman, “The Future of Radiation Curing: Challenges, Opportunites, and Solutions,” Radtech Annual Winter Membership Meeting, January 2009.
35. C.N. Bowman, “Photochemical and Thermally Adaptable Networks,” 30th Australasian Polymer Symposium, Melbourne, Australia, November 2008.
36. C.N. Bowman, “Novel Developments and Applications of Photopolymerizations,” University of Washington, Seattle, WA, October 2008.
37. C.N. Bowman, P. Johnson, and J.W. Stansbury, “High Throughput Evaluation and Formulation Design for Photopolymerization,” American Chemical Society National Meeting, Philadelphia, PA, August 2008.

38. C.N. Bowman, P. Johnson, and J.W. Stansbury, "High Throughput Evaluation and Formulation Design for Photopolymerization," 2008 International Symposium on Polymer Analysis and Characterization, Newark, DE, June 2008.
39. C.N. Bowman, "Novel Photopolymerization Reactions, Strategies and Applications," Boise State University, Boise, ID, April 2008.
40. C.N. Bowman, "High Throughput Analysis, Modeling and Design of Photopolymerized Resin Systems," NCMC-13: Advances in Library Fabrication, NIST Gaithersburg Campus, Gaithersburg, MD, April 2008.
41. C.N. Bowman, "Reversible and Adaptable Networks," Liquid Crystal Research Center Research Review, University of Colorado, April 2008.
42. C.N. Bowman, N.B. Cramer, S.K. Reddy, H. Kilambi, A.K. O'Brien, A.E. Rydholm, and K.S. Anseth, "Photoinduced and Catalyzed Thiol-Vinyl Reactions in Polymers," 235th American Chemical Society National Meeting, New Orleans, LA, April 2008.
43. C.N. Bowman, H.D. Sikes, R.R. Hansen, and L.M. Johnson, "Synthesis of Biofunctional Photoinitiators for the Detection of Nanoscopic Materials" 235th American Chemical Society National Meeting, New Orleans, LA, April 2008.
44. C.N. Bowman, "Novel Developments and Applications of Photopolymerizations," Colorado School of Mines, Golden, CO, February 2008.
45. C.N. Bowman, K. Anseth, A. Kannurpatti, A. Guymon, M. Goodner, A.T. Metters, L. Lovell, J. Elliott, K.A. Berchtold, N. Cramer, E. Beckel, A. O'Brien, S. Reddy, and H. Kilambi, "Reaction Engineering of Photopolymerized Systems," AIChE 2007 Annual Meeting, Salt Lake City, UT, November 2007.
46. A. Rydholm, V. Khire, D. Benoit, K.S. Anseth, and C.N. Bowman, "Surface Modification, Network Structure, Degradation, and Cellular Interactions of Thiol-Ene Networks," 2007 MRS Fall Meeting, Boston, MA, November 2007.
47. C.N. Bowman, T. Haraldsson, R. Sebra, B. Hutchison, S. Reddy, N. Cramer, K.S. Anseth, and R.H. Davis, "Materials, Methods and Approaches to the Contact Liquid Photopolymerization-Based Fabrication of Polymeric Microfluidic Devices," 34th Annual Meeting of the Federation of Analytical Chemistry and Spectroscopy Societies, Memphis, TN, October 2007.
48. C.N. Bowman, "Novel Developments and Applications of Photopolymerizations," University of South Carolina, Columbia, September 2007.
49. C.N. Bowman, "Polymerization Reactions for Biological Detection," University of Colorado Cancer Center Colloquia, Aurora, CO, September 2007.
50. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," Henkel Corporation, Rocky Hill, CT, August 2007.
51. C.N. Bowman, "Mechanisms and Applications of Photoinduced Plasticization in Crosslinked Networks," 2007 Gordon Research Conference, New London, NH, July 2007.
52. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," CIBA Specialty Chemicals, Tarrytown, NY, July 2007.
53. C.N. Bowman, "Where Do Ideas Come From?" National MD/PhD Conference, Keystone, CO, July 2007.
54. P.M. Johnson, J.W. Stansbury, and C.N. Bowman, "High Throughput Evaluation and Formulation Design for Photopolymerization," Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.

55. C.N. Bowman, "Low Stress and Adaptable Polymer Films from Photopolymerization Reactions," PSCT May Symposium, Horsham, PA, May 2007.
56. C.N. Bowman, "Next Generation Lens Materials: Possibilities and Opportunities," Vistakon Vision 2007 Symposium, Jacksonville, FL, May 2007.
57. C.N. Bowman, N.B. Cramer, T.Y. Lee, and J.A. Carioscia, "Thiol-ene Photopolymerization Reactions: Fundamentals, Development, and Applications," 233rd National Meeting of the American Chemical Society, Chicago, IL, March 2007.
58. C.N. Bowman, P.M. Johnson, and J.W. Stansbury, "Investigations of Photopolymerization Kinetics Using Throughput Analysis," Fourth International Workshop on Combinatorial Science and Technology, San Juan, Puerto Rico, December 2006.
59. C.N. Bowman, "Nanotechnology," Lexmark International, Lexington, KY, December 2006.
60. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," University of California at Riverside, November 2006.
61. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," Drexel University, October 2006.
62. C.N. Bowman and S. Reddy, "Rate Mechanisms and Kinetic Modeling of Thiol-Ene Systems," 4th IUPAC Sponsored International Symposium on Radical Polymerization: Kinetics and Mechanism, Tuscany, Italy, September 2006.
63. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," Rohm and Haas, Philadelphia, PA, April 2006.
64. N.B. Cramer, C. O'Brien, and C.N. Bowman, "Novel Photopolymerizable Monomers," 2006 UV & EB Technology Expo & Conference, Chicago, IL, April 2006.
65. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," General Electric, Albany, New York, March 2006.
66. C.N. Bowman, "Novel Monomers for Dental Restorative Materials," 35th Annual Meeting and Exhibition of the AADR, Orlando, FL, March 2006.
67. C.N. Bowman, T.F. Scott, R.B. Draughon, A.D. Schneider, and W.D. Cook, "Photoinduced Plasticity in Cross-Linked Polymers," 28th Australasian Polymer Symposium, Rotorua, New Zealand, February 2006 (Keynote Lecture).
68. C.N. Bowman, "Understanding and Applications of Thiol-ene Photopolymerizations," Physical Sciences, Andover, MA, October 2005.
69. C.N. Bowman, "Modeling and Development of Thiol-Ene Photopolymerizations," RadTech Europe 2005 Conference, Barcelona, Spain, October 2005.
70. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," MIT, September 2005.
71. C.N. Bowman, "Novel Applications and Developments Utilizing Photopolymerizations," Henkel Corporation, September 2005.
72. C.N. Bowman, N. Cramer, and D. Walba, "Photopolymerization in Real Life: Research and Applications in Nanotechnology and Biomaterials," 2005 SACNAS National Conference, Denver, CO, September 2005.

73. C.N. Bowman, "Stress Relaxation in Photopolymerizable Materials," 3M, St. Paul, Minnesota, August 2005.
74. S.K. Reddy, N.B. Cramer, A.E. Rydholm, K.S. Anseth, and C.N. Bowman, "Network Structures and Polymers Formed from Thiol-Ene Polymerizations," 44th Microsymposium on Polymer Gels and Networks, Prague, Czech Republic, July 2005.
75. S.K. Reddy, A.E. Rydholm, K.S. Anseth, and C.N. Bowman, "Degradation of Thiol-acrylate and Thiol-ene Polymer Systems: Networks Control for Tissue Engineering Applications," 44th Microsymposium on Polymer Gels and Networks, Prague, Czech Republic, July 2005.
76. C.N. Bowman, "Exploitation of Photopolymerizations for Novel Applications," University of Colorado, Photopolymerization Fundamentals 2005, Breckenridge, CO, June 2005.
77. C.N. Bowman, "Novel Photopolymerization Strategies for Optimization of Biomaterial Function and Performance," Society for Biomaterials 30th Annual Meeting and Exposition, Memphis, TN, April 2005.
78. C.N. Bowman, "Photopolymerization Reactions: Use of Light to Create, Modify, and Manipulate Materials," Optical Science and Engineering Program (OSEP), University of Colorado, March 2005.
79. C.N. Bowman, "Photopolymerizations: Exploring Novel Reactions, Applications, and Materials," 3M, St. Paul, MN, March, 2005.
80. C.N. Bowman, "Recent Developments in Photopolymerizations in Micro and Nanotechnology," UV/EB West Radtech International Meeting, Los Angeles, CA, February, 2005.
81. C.N. Bowman, "Recent Developments in Photopolymerizations for Biosensors," ThermoBiostar, Broomfield, CO, February, 2005.
82. C.N. Bowman, "Structures, Reactions, and Applications of Thiol-Ene Photopolymerizations," Clemson University, November, 2004.
83. C.N. Bowman, "Photopolymerization and Their Application to Biodetection," BioStar, November, 2004.
84. C.N. Bowman, "Structures, Reactions, and Applications of Thiol-Ene Photopolymerizations," IUPAC Macro 2004, Paris, France, July, 2004.
85. C.N. Bowman, "Structures, Reactions, and Applications of Thiol-Ene Photopolymerizations," University of Missouri at Columbia Bent Lecture, April, 2004.
86. C.N. Bowman, "Structures, Reactions, and Applications of Thiol-Ene Photopolymerizations," University of Texas at Austin, April, 2004.
87. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Bent Lecture Series, University of Missouri-Columbia, April, 2004.
88. C.N. Bowman, H. Lu, and J.W. Stansbury, "Novel Investigation of Thiol-Ene System for Future Dental Restorative Resins," International Association for Dental Research Annual Meeting, Honolulu, HI, March, 2004.
89. C.N. Bowman, "Photopolymerizations: Yesterday, Today and Tomorrow," Henkel Corporation International Radcure Workshop, Rocky Hill, CT, March, 2004.
90. C.N. Bowman, "A New Paradigm in Composite Restoratives? Thiol-ene Polymerizations for Dental Restorative Materials," 20th Annual Scientific Meeting of the Colorado Section, American Association for Dental Research, Denver, CO, February, 2004.

91. C.N. Bowman, "Structures, Reactions, and Applications of Thiol-Ene Photopolymerizations," California Institute of Technology, Pasadena, CA, January, 2004.
92. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," National Institute of Standards and Technology, Gaithersburg, MD, January 2004.
93. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Iowa State University, Ames, IA, October, 2003.
94. C.N. Bowman, " Novel Photopolymerization Methods and Their Exploitation for Emerging Applications,"
95. Seventh International Symposium on Polymers for Advanced Technologies, Ft. Lauderdale, FL, September, 2003.
96. C.N. Bowman, "C.N. Bowman, "'Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Gordon Research Conference, Polymers East, June, 2003.
97. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Polymer Reaction Engineering V Conference, Quebec City, Canada, May, 2003.
98. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Columbia University, New York City, NY, April, 2003.
99. C.N. Bowman, "C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Georgia Institute of Technology, Atlanta, GA, April, 2003.
100. C.N. Bowman, "Crosslinking in Thiol-acrylate Photopolymerizations," American Chemical Society Spring Conference, Division of Polymer Chemistry, New Orleans, LA, March, 2003.
101. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Stanford University, Stanford, CA, February, 2003.
102. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," 30th Annual International Waterborne, High-Solids and Powder Coatings Symposium, New Orleans, LA, February 2003.
103. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Stanford University, Stanford, CA, February 2002.
104. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," University of Kentucky, Lexington, KY, November, 2002.
105. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," 3M, St. Paul, MN, November, 2002.
106. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Wright Patterson Air Force Base, Dayton, OH, October, 2002.
107. C.N. Bowman, "Novel Photopolymerization Methods and Their Exploitation for Emerging Applications," Massachusetts Institute of Technology, Cambridge, MA, October, 2002.
108. C.N. Bowman, "Photopolymerization Kinetics: What We Know and What We Don't ?," Photopolymerization Fundamentals 2002, June, 2002.
109. C.N. Bowman, "Molecular Design in Photopolymerization Reactions," UCB Chemicals, April, 2002.
110. C.N. Bowman, "Monitoring Crosslinking and Gelation in Membrane Systems," Millipore Corporation, March 2002.

- 111.C.N. Bowman, "Molecular Design in Photopolymerization Reactions," University of Southern California, February, 2002.
- 112.C.N. Bowman, "Molecular Design in Photopolymerization Reactions," Purdue University, February, 2002.
- 113.C.N. Bowman, K.S. Anseth, "Polymer Education at the University of Colorado," AIChE 2001 Annual Meeting, Reno, NV, November, 2001.
- 114.C.N. Bowman, "Molecular Design in Photopolymerization Reactions," University of California at Santa Barbara, November, 2001.
- 115.C.N. Bowman, "Using Light to Turn Liquids into Solids," Colorado Science Convention 2001—A Science Odyssey, Denver, CO, October, 2001.
- 116.C.N. Bowman, "Real-time Monitoring of Photopolymerization Kinetics," EFOS, Inc., Toronto, Canada, May, 2001.
- 117.C.N. Bowman, "Photopolymerization Kinetics," Alcatel Telecommunications Cable, Claremont, NC, March, 2001.
- 118.C.N. Bowman, "Cyclization and Crosslinked Structure in Photopolymerizations," Millipore Corporation, Boston, MA, March, 2001.
- 119.C.N. Bowman and N.B. Cramer, "The Effects of Nanostructure on Polymerization Kinetics," PacificChem 2000, December 2000.
- 120.C.N. Bowman, "Photopolymerization Kinetics," Arizona State University, September 2000.
- 121.C.N. Bowman, "Chain-Length Dependent Kinetics," DSM Desotech, July 2000.
- 122.C.N. Bowman, "Thiol-Ene Photopolymerization Kinetics," 3M Company, June 2000.
- 123.C.N. Bowman, "Photopolymerizations in Organized Environments," Princeton University, April 2000.
- 124.C.N. Bowman and B.J. Elliott, "Polymerization Kinetics in Self-Assembled Systems," 23rd Australian Polymer Society Meeting, Geelong, Victoria, Australia, December 1999.
- 125.C.N. Bowman, B.J. Elliott, and C.A. Guymon, "Photopolymerization Kinetics in Polymer/Liquid Crystal Composites," Radtech Europe, Berlin, Germany, November 1999
- 126.C.N. Bowman, "Photopolymerization Kinetics," Department of Chemical Engineering, Princeton University, October 1999.
- 127.C.N. Bowman, "Structural Evolution in Crosslinked Polymers," NIST Dental and Biomedical Group, Gaithersburg, MD, July 1999
- 128.C.N. Bowman, "Polymerization and Characterization of Polymer / Liquid Crystal Composites," Department of Chemical Engineering, University of Iowa, July 1999.
- 129.C.N. Bowman, "Pseudocrown Ethers for Adsorption and Separation," Reactive Polymers Gordon Conference, Henniker, New Hampshire, July 1999.
- 130.C.N. Bowman, "Polymerization and Characterization of Polymer / Liquid Crystal Composites," McMaster University Institute Lecture, Hamilton, Ontario, April 1999.
- 131.C.N. Bowman, "Polymerization Kinetics in Polymer / Liquid Crystal Composites," University of Illinois, Department of Chemical Engineering, April 1999.

- 132.C.N. Bowman, "Photopolymerization Kinetics," Alcon, Fort Worth, TX, March 1999.
- 133.C.N. Bowman, "Cyclization Reactions in Crosslinked Polymers," NAPP Systems, San Marcos, CA, October, 1998.
- 134.C.N. Bowman, "Polymerizations and Properties of Polymer Stabilized Ferroelectric Liquid Crystals," Michigan State University, East Lansing, MI, September, 1998.
- 135.C.N. Bowman, "Photopolymerization Kinetics of Polymer Stabilized Ferroelectric Liquid Crystals," DSM Desotech, Elgin, IL, August, 1998.
- 136.C.N. Bowman and J.E. Gibson, "Primary Cyclization Reactions in Chain Polymerizations," Networks 98 Meeting, Trondheim, Norway, July, 1998.
- 137.C.N. Bowman and J.E. Gibson, "Primary Cyclization Reactions in Crosslinked Polymers," Macro 98, Gold Coast, Australia, July, 1998.
- 138.C.N. Bowman, "Polymerizations and Properties of Polymer Stabilized Ferroelectric Liquid Crystals," Department of Materials Science, Monash University, Melbourne, Australia, July 1998.
- 139.C.N. Bowman, "Photopolymerizations of Polymer Stabilized Ferroelectric Liquid Crystals," 3M Company, St. Paul, MN, March, 1998.
- 140.C.N. Bowman, "Reaction Engineering of Photopolymerizations," Photopolymerizations Workshop, University of Southern Mississippi, Hattiesburg, MS, March, 1998.
- 141.A.R. Kannurpatti, L.G. Lovell, S.M. Newman, and C.N. Bowman*, "Polymerization Behavior and Properties of Networks Formed by Dimethacrylate Dental Resins," American Chemical Society National Meeting, Las Vegas, NV, September, 1997.
- 142.C.N. Bowman* and K.S. Anseth, "Kinetic and Structural Evolution in Crosslinking Photopolymerizations," American Chemical Society National Meeting, Las Vegas, NV, September, 1997.
- 143.C.N. Bowman, "Polymerizations and Properties of Polymer Stabilized Ferroelectric Liquid Crystals," Materials Research Society Outstanding Young Investigator Award Presentation, Wright Patterson Air Force Base, Laser Hardening Group, May 8, 1997.
- 144.C.N. Bowman,"An Overview of UV Induced Photopolymerizations and Crosslinking," Federation of Coatings Society, Orlando, FL, April 24, 1997.
- 145.C.N. Bowman, "Polymerizations and Properties of Polymer Stabilized Ferroelectric Liquid Crystals," Materials Research Society Outstanding Young Investigator Award Presentation, April 2, 1997.
- 146.C.N. Bowman, "Photopolymerization Kinetics in the Production of Polymer Stabilized Ferroelectric Liquid Crystals," DuPont Company, Wilmington, DE, March 19, 1997.
- 147.C.N. Bowman, "Kinetics of Multifunctional Monomer Polymerizations," University of Southern Mississippi, Department of Polymer Science, February 13, 1997.
- 148.C.N. Bowman, "Application of Living Radical Polymerizations for the Study of Crosslinked Polymer Structural Evolution," 3M Technical Forum, Minneapolis, MN, January 27, 1997.
- 149.C.N. Bowman, "Polymerization Kinetics in Crosslinking Photopolymerizations," Bausch and Lomb Company, Rochester, NY, November 18, 1996.

- 150.C.N. Bowman, "Photopolymerization Kinetics and Monomer Heterogeneity during Formation of Polymer Gels in Ferroelectric Liquid Crystals," Organic Chemistry Group, Philips Research, Eindhoven, The Netherlands, September 1996.
- 151.A.R. Kannurpatti and C.N. Bowman, "Structural Heterogeneity of Crosslinked Polymers Formed by Photopolymerizations of Multifunctional Monomers," American Chemical Society National Meeting, Orlando, FL, August 1996.
- 152.C.N. Bowman, "Photochemistry of Polymers: Photopolymerizations - Chemistry and Applications," at the Critical Reviews of Optical Science and Technology, Polymers in Optics: Physics, Chemistry, and Applications Symposium, Denver, CO, August 1996.
- 153.C.N. Bowman, "Electro-optic Properties and Polymerization Behavior in Polymer Stabilized Ferroelectric Liquid Crystals," at the CPIMA forum on Display Materials, Stanford University, Palo Alto, CA, July 1996.
- 154.C.N. Bowman, "Photopolymerization Behavior and Photopolymer Structure," DSM Desotech, Elgin, IL, May 1996.
- 155.C.N. Bowman, "Polymerization Mechanisms and Polymer Structure in Polymerizations of Multifunctional Monomers," Plenary Speaker, University of Waterloo, Institute for Polymer Research May Symposium, Waterloo, Ontario, Canada, May 1996.
- 156.C.N. Bowman, "Mechanisms, Characterization and Applications of Iniferter Polymerizations," 3M Company, Minneapolis, MN, January 1996.
- 157.C.N. Bowman, "Polymerization Mechanisms and Polymer Structure in Polymerizations of Multifunctional Monomers," Department of Chemical Engineering, University of Minnesota, Minneapolis, MN, January 1996.
- 158.C.N. Bowman, "Polymerization Mechanisms and Polymer Structure in Polymerizations of Multifunctional Monomers," Department of Chemical Engineering, University of Michigan, Ann Arbor, MI, January 1996.
- 159.C.N. Bowman, "Heterogeneity, Structure, and Properties of Crosslinked Polymers," BASF Company, Ludwigshafen, Germany, January 1996.
- 160.C.N. Bowman, "Photopolymerizations of Multifunctional Monomers: Structure and Mechanisms," National Starch Company, Edgewater, NJ, December 1995.
- 161.C.N. Bowman, "Microstructural Evolution in Polymerizations of Multifunctional Monomers," Polaroid Company, Cambridge, MA, November 1995.
- 162.C.N. Bowman, "Publishing as a Graduate Student," Graduate Teacher Program Series, University of Colorado, Boulder, CO, October 1995.
- 163.C.N. Bowman, "Termination Mechanisms in Polymerizations of Multifunctional Monomers," Intersociety Polymer Conference, Baltimore, MD, October 1995.
- 164.C.N. Bowman, "Kinetics and Heterogeneity of Polymerizations of Highly Crosslinked Coatings," E.I. DuPont de Nemours Company, Coatings Division, Wilmington, DE, October 1995.
- 165.C.N. Bowman, "Kinetics and Heterogeneity of Polymerizations of Multifunctional Monomers," Gordon Conference on Films and Coatings, New Hampton, NH, July 1995.
- 166.C.N. Bowman, "Funding Opportunities for Young Faculty or *Assistant Professor Jones and the Search for the Holy Grant*," American Society of Engineering Education Forum, National Research Council, Washington, D.C., March 1995.

- 167.C.N. Bowman, "Polymer Science and Dentistry: Are They Compatible?," keynote address at the University of Colorado School of Dentistry's Research Day, Denver, CO, February 1995.
- 168.C.N. Bowman, "Polymerizations of Multifunctional Monomers and Their Applications to Dentistry," Dental Products Division, 3M Company, Minneapolis, MN, February 1995.
- 169.C.N. Bowman, "Microstructural Evolution During Polymerizations of Tetrafunctional Monomers," Networks 94 Meeting, Prague, The Czech Republic, July 1994.
- 170.C.N. Bowman, "Photopolymerization Behavior of Multi(meth)acrylates," Department of Polymers and Organic Chemistry, Philips Research Laboratories, Eindhoven, The Netherlands, July 1994
- 171.C.N. Bowman, "Kinetics and Heterogeneity of Photopolymerizations of Multi(meth)acrylates," Photochemistry Division, 3M Company, Minneapolis, MN, June 1994.
- 172.C.N. Bowman, "Polymerizations of Multifunctional Monomers: An Overview," Colorado School of Mines, Department of Chemical Engineering, January 1994.
- 173.C.N. Bowman, "Polymerizations of Multifunctional Monomers: An Overview," Unilever Co., New Jersey, November 1993.
- 174.C.N. Bowman, "Modeling and Characterizations of Multifunctional Monomer Polymerizations," Colorado State University Chemical Engineering Department, Fort Collins, CO, October 1993.
- 175.C.N. Bowman, "Kinetic, Structural, and Relaxational Aspects During Photopolymerizations of Multifunctional Monomers," ACS Unilever Award Presentation, American Chemical Society National Meeting, Chicago, IL, August 1993.
- 176.C.N. Bowman, "Kinetic, Relaxational, and Structural Considerations of Multifunctional Monomer Polymerization Reactions," presented to the Nuclear Materials and Polymer Science Groups at Los Alamos National Laboratories, Los Alamos, NM, December 1992.
- 177.C.N. Bowman, "Kinetic Gelation and Physical Aging Modeling of the Polymerizations of Multifunctional Monomers," presented to the Department of Polymer Science, University of Groningen, Groningen, The Netherlands, June 1990.
- 178.C.N. Bowman, "Modeling of the Coupled Physical Aging and Reaction Kinetics in Photopolymerizations of Multifunctional Monomers," presented to the Department of Polymers and Organic Chemistry, Philips Research Laboratories, Eindhoven, The Netherlands, June 1990.

OTHER PRESENTATIONS

1. C.N. Bowman, "Photofixation of Diels-Alder Networks," Annual AIChE Meeting, Minneapolis, MN, October 2011.
2. K.C. Koehler C.N. Bowman, and C.J. Kloxin, "The Development of a Paradigm for the Facile Incorporation of Diels-Alder Moieties," Annual AIChE Meeting, Minneapolis, MN, October 2011.
3. B. Adzima, C.J. Kloxin, and C.N. Bowman, "Photoinitiators as Copper(II) Reductants: A New Approach to the Copper-Catalyzed Azide-Alkyne Cycloaddition," Annual AIChE Meeting, Minneapolis, MN, October 2011.
4. T.F. Scott, C.J. Kloxin, H.Y. Park, and C.N. Bowman, "Mechanophotopatterning of a Covalent Adaptable Network," Annual AIChE Meeting, Minneapolis, MN, October 2011.
5. B.J. Berron and C.N. Bowman, "Stimuli-responsive Microfluidic Valves for Antigen Detection," Annual AIChE Meeting, Minneapolis, MN, October 2011.
6. D. Leung and C.N. Bowman, "Photo-responsive Trithiocarbonate," Annual AIChE Meeting, Minneapolis, MN, October 2011.
7. R.J. Sheridan and C.N. Bowman, "Investigation of Time and Temperature Dependence of Properties in Diels-Alder Networks: Gelation and Crossover Frequency," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
8. S. Ye, N.B. Cramer, I.R. Smith, C.N. Bowman, and K. Voigt, "using Thiol-yne-methacrylate Ternary System to Reduce Shrinkage Stress," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
9. M. Cole, K.M. Schreck, and C.N. Bowman, "Functionalized Siloxane Oligomers for Use as Elastomeric Dental Impression Materials," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
10. A.A. Alzahrani and C.N. Bowman, "Minimization of Copper Concentration and Optimization of the Initiation and Reaction Rates for the Photo-CuAAC Reaction," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
11. I.R. Smith, S. Ye, N.B. Cramer, and C.N. Bowman, "Kinetics and Mechanical Properties of Thiol-yne-glass Filler System," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
12. D. Leung and C.N. Bowman, "Photo-responsive Trithiocarbonate," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
13. D.P. Nair, N.B. Cramer, R. Shandas, C.N. Bowman, and T.F. Scott, "Thiol-ene Systems as Photopolymerized Shape Memory Polymers," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
14. D. Leung and C.N. Bowman, "Hybrid Molecular Fillers for Photopolymerized Networks," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
15. K.C. Koehler, C.J. Kloxin, and C.N. Bowman, "Development of a Paradigm for the Facile Incorporation of Diels-Alder Moieties," 242nd American Chemical Society National Meeting, Denver, CO, August 2011.
16. H.Y. Park, C.J. Kloxin, and C.N. Bowman, "Stress Relaxation by Addition-Fragmentation Chain Transfer in Highly Crosslinked Thiol-Ynes," IADR 89th General Session, San Diego, CA, March 2011.
17. M. Cole, K.M. Schreck, and C.N. Bowman, "Functionalized Siloxane Oligomers for Use as Elastomeric Dental Impression Materials," IADR 89th General Session, San Diego, CA, March 2011.

18. B.D. Fairbanks, S.P. Singh, C.N. Bowman, and K.S. Anseth, "Photodegradable, Photoadaptable Hydrogels via Radical-mediated Disulfide Scission and Thiol-ene Reaction," AIChE Annual Meeting, Salt Lake City, UT, November 2010.
19. H.Y. Park, C.J. Kloxin, T.F. Scott, and C.N. Bowman, "Stress Relaxation by Addition-Fragmentation Chain Transfer in Highly Cross-linked Thiol-Yne Networks," AIChE Annual Meeting, Salt Lake City, UT, November 2010.
20. C.J. Kloxin, B. Adzima, and C.N. Bowman, "Externally Triggered Healing of Thermoreversible Covalent Adaptable Network via Self-Limited Hysteresis Heating," AIChE Annual Meeting, Salt Lake City, UT, November 2010.
21. B.D. Fairbanks, M.P. Schwartz, C.N. Bowman, M. Zaman, and K.S. Anseth, "Modeling Cellular Microenvironments Using Thiol-ene Extracellular Matrix Mimics," 240th American Chemical Society National Meeting, Boston, MA, August 2010.
22. C. Kloxin, H. Park, T. Scott, and C.N. Bowman, "Reversible Addition – Fragmentation Chain Transfer for Low Stress Thiol-ene/yne Networks," 240th American Chemical Society National Meeting, Boston, MA, August 2010.
23. K.M. Schreck, N.B. Cramer, C. Couch, J.E. Boulden, J.W. Stansbury, and C.N. Bowman, "Photopolymerized Methacrylate: Thiol-ene Networks for Dental Restorative Applications," 240th American Chemical Society National Meeting, Boston, MA, August 2010.
24. W.D. Cook, F. chen, D. Nghiem, C. Moorhoff, J. Sun, S. Thang, C. Bowman, and T. Scott, "New Crosslinked Polymers Exhibiting photo-induced Stress Relaxation," Polymer Networks Group Meeting, Goslar Germany, August 2010.
25. B.J. Adzima, C.J. Kloxin, and C.N. Bowman, "Fracture Healing of a Polymer network via Hysteresis Heating," Polymer Networks Group Meeting, Goslar, Germany, August 2010.
26. R. Sheridan and C. Bowman, "Factors Controlling Fracture Healing Performance in Thermoreversible Polymer Networks," Polymer Networks Group Meeting, Goslar, Germany, August 2010.
27. W. Cook, F. Chen, Cornelis Moorhoff, D. Nghiem, J. Sun, S. Thang, C. Bowman, and T. Scott, "Photo-induced Creep and Stress Relaxation in Crosslinked Polymers Using B-scission of Allylic Thio-ether United in Network Strands," MACRO2010, 43rd IUPAC World Polymer Congress, Glasgow, UK, July 2010.
28. C. Bowman, "Photochemical and Thermal Covalent Adaptable Networks," MACRO2010, 43rd IUPAC World Polymer Congress, Glasgow, UK, July 2010.
29. C. Kloxin, T. Scott, and C. Bowman, "Addition-fragmentation Chain Transfer in Chemical Networks," MACRO2010, 43rd IUPAC World Polymer Congress, Glasgow, UK, July 2010.
30. A. Lowe, A. Harvison, J. Chan, and C. Bowman, "Thiol-Click Chemistries in Polymer Synthesis and Modification," MACRO2010, 43rd IUPAC World Polymer Congress, Glasgow, UK, July 2010.
31. H. Park and C.N. Bowman, "Stress Relaxation by AFCT in the Photopolymerization of Highly Cross-linked Thiol-yne Networks," RadTech UV&EVB Tech Expo and Conference, Baltimore, MD, May 2010.
32. N. Cramer and C.N. Bowman, "Unique Polymerization Properties of Thiol-ene-methacrylate Systems," RadTech UV&EVB Tech Expo and Conference, Baltimore, MD, May 2010.
33. B.D. Fairbanks, H. Park, C. Kloxin, T. Scott, K. Anseth, and C.N. Bowman, "Mechanism and Kinetics of Novel, Step-growth Thiol-yne Photopolymerization," IADR/AADR Annual Meeting, Washington, DC, March 2010.

34. N. Cramer and C.N. Bowman, "Measurement and Modeling of Oxygen Inhibition Layer in Radical Photopolymerizations," IUCRC Meeting, Iowa City, IA, January 2010.
35. A. Pendurti and C.N. Bowman, "Modeling Property Evolution in Photopolymer Systems," IUCRC Meeting, Iowa City, IA, January 2010.
36. K. Schreck and C.N. Bowman, "Molecularly Filled Composites," IUCRC Meeting, Iowa City, IA, January 2010.
37. N.C. Cramer, D.P. Nair, R. Shandas, and C.N. Bowman, "Thiol-ene Systems as Shape Memory Polymers," 11th Pacific Polymer Conference, Cairns, Australia, December 2009.
38. K. Ha, K. Hwang, and C.N. Bowman, "Surface Modification of Silica Nanoparticles and Their Effects on the Self-Life Stability of Thiol-ene Formulations," 238th ACS National Meeting, Washington, DC, August 2009.
39. W.D. Cook, T.F. Scott, C.N. Bowman, F. Chen, D. Nghiem, S. Chausson, and L. LePluart, "Photo-induced Viscoelastic Creep and Stress Relaxation in Crosslinked Polymers," 238th ACS National Meeting, Washington, DC, August 2009.
40. C.N. Bowman, C.J. Kloxin, H. Park, and T.F. Scott, "Concurrent and Photopolymerization and Stress Relaxation Covalent Adaptable Networks," 238th ACS National Meeting, Washington, DC, August 2009.
41. J.S. Ashley, A. Zinchenko, R.H. Davis, and C.N. Bowman, "Modeling of Particle Transport at Low Reynold's Number in Complex Channels Using a Dynamic Boundary-Integral Method," 2009 AIChE Annual Meeting, Nashville, TN, November 2009.
42. C.J. Kloxin, B. Adzima, T.F. Scott, and C.N. Bowman, "Photochemical and Thermally Adaptable Networks," 2009 AIChE Annual Meeting, Nashville, TN, November 2009.
43. B.J. Berron and C.N. Bowman, "Basic and Applied Studies in Biologically Relevant Polymer Thin Films," 2009 AIChE Annual Meeting, Nashville, TN, November 2009.
44. H.J. Avens, B.J. Berron, and C.N. Bowman, "Fluorescent Polymerization-Based Signal Amplification of Antigenic Binding Events for Immunofluorescent Imaging of Cells," 2009 AIChE Annual Meeting, Nashville, TN, November 2009.
45. K.R. Voigt, H.J. Avens, B.J. Berron, V. Balasubramaniam, G.J. Seedorf, and C.N. Bowman, "Polymer-Based Amplification of Cellular Protein Detection," 2009 AIChE Annual Meeting, Nashville, TN, November 2009.
46. B.J. Berron, L.M. Johnson, X. Ba, and C.N. Bowman, "Kinetic Investigation of Enzymatic Initiation of Biocompatible Polymer Thin Films," 2009 AIChE Annual Meeting, Nashville, TN, November 2009.
47. B.J. Berron, H.J. Avens, and C.N. Bowman, "Polymerization Enhanced Immunofluorescent Staining," 2009 AIChE Annual Meeting, Nashville, TN, November 2009.
48. J. Boulden, N. Cramer, M. Trujillo-Lemon, C. Bracho-Troconis, and C.N. Bowman, "Properties of Ternary Methacrylate-Thiol-Ene Composites," IADR General Session, Miami, FL, April, 2009.
49. H.Y. Park, C.J. Kloxin, and C.N. Bowman, "Stress Relaxation by Additional-Fragmentation in Polymer Networks," IADR General Session, Miami, FL, April, 2009.
50. K. Schreck, N. Cramer, C. Couch, R. Wydra, J.W. Stansbury, and C.N. Bowman, "Visible-light-cured Thiol-ene Resins for Dental Restorative Applications," IADR General Session, Miami, FL, April, 2009.

51. J. Biggs, J.A. Morrill, C.N. Bowman and J.W. Stansbury, "Development of Quantitative Structure-Activity Relationships for Predictive Modeling of Dental Biomaterials," 237th American Chemical Society National Meeting and Exposition, Salt Lake City, UT, March 2009
52. H.J. Avens, and C.N. Bowman, "Polymerizaation for Signal Amplification of Antibody-based Biodetection," 237th American Chemical Society National Meeting and Exposition, Salt Lake City, UT, March 2009
53. H. Avens and C.N. Bowman, "Polymerization-Based Signal Amplification for Improved Biodetection in Antibody Microarrays" 30th Australasian Polymer Symposium, Melbourne, Australia, November 2008.
54. L. Johnson, R. Hansen, and C.N. Bowman, "Polymerization-Based Signal Amplification for the Detection of Cancer Biomarkers" 30th Australasian Polymer Symposium, Melbourne, Australia, November 2008.
55. B. Adzima, C.J. Kloxin, T.F.Scott, and C.N. Bowman, "Characterization of the Temperature Dependent Chemical and Mechanical Properties of a Diels-Alder Based Crosslinked Polymeric Material," Annual AIChE Meeting, Philadelphia, PA, November 2008.
56. R.R. Hansen, H.J. Avens, R. Shenoy, and C.N. Bowman,"Quantitative Evaluation of Oligonucleotide Surface Concentrations Using Polymerization-Based Amplification," Annual AIChE Meeting, Philadelphia, PA, November 2008.
57. L. Johnson and C.N. Bowman, "Signal Amplification Method for the Detection of Biomarkers Using Radical Chain Polymerization," American Chemical Society National Meeting, Philadelphia, PA, August 2008.
58. R. Hansen, H.D. Sikes, L.M. Johnson, and C.N. Bowman, "Development of Polymerization Based Amplification for the Detection of Nucleic Acid Hybridization," 8th World Biomaterials Congress, Amsterdam, May 2008.
59. B. Fairbanks, P. Polizzotti, C. Nuttelman, C. Bowman, and K. Anseth, "Thiol-ene Photopolymerization for the Synthesis of Poly(ethylene glycol)-peptide Hydrogels," 8th World Biomaterials Congress, Amsterdam, May 2008.
60. C.N. Bowman, P.M. Johnson, and J.W. Stansbury, "Optimization of Photopolymer Formulations from High-Throughput Analysis and Modeling," RadTech – The Association for UV & EB Technology, Chicago, IL, May 2008.
61. N. Cramer, J. Boulden, L. Scheidewind, and C.N. Bowman, "Multicomponent Thiol-Ene Systems for Tailored Polymer Properties," RadTech – The Association for UV & EB Technology, Chicago, IL, May 2008.
62. J.E. Boulden, N.B. Cramer, and C.N. Bowman, "Tiol-ene Based Reconstructive Dental Materials," 235th American Chemical Society National Meeting, New Orleans, LA, April 2008.
63. C.J. Kloxin, T.F. Scott, R.B. Draughon, and C.N. Bowman, "Photoinduced Stress Relaxation in Thiol-ene Polymer Networks," 235th American Chemical Society National Meeting, New Orleans, LA, April 2008.
64. C.N. Bowman, C.J. Kloxin, T.F. Scott, and R.B.Draughon, "New Mechanism for Concurrent Photopolymerization and Stress Relaxation," 37th Annual Meeting and Exhibition of AADR, Dallas, TX, April 2008.
65. N. Cramer, H. Kilambi, L. Schneidewind, J.W. Stansbury, and C. Bowman, "Highly Reactive Monomethacrylates as Reactive Diluents for Dimethacrylate-based Dental Composites," 37th Annual Meeting and Exhibition of AADR, Dallas, TX, April 2008.
66. J.W. Garcia, P.K. Shah, C.N. Bowman, and J.W. Stansbury, "Effects of Reaction Kinetics and Conversion on Photopolymerization Stress Development," 37 Annual Meeting and Exhibition of AADR, Dallas, TX, April 2008.

67. C.N. Bowman, "The Origins and Mitigation of Stress Development During Photopolymerizations," 3M IUCRC Day, Minneapolis, MN, April 2008.
68. N. Cramer and C.N. Bowman, "Mechanistic Studies, Advanced Characterization, and Novel Development of Thiol-Ene Reactions," 3M IUCRC Day, Minneapolis, MN, April 2008.
69. K. Schreck, T-Y Lee, and C.N. Bowman, "Molecular Fillers for Thiol-Ene Composites, 3M IUCRC Day, Minneapolis, MN, April 2008.
70. C.J. Kloxin, T.F. Scott, R.B. Draughon, and C.N. Bowman, "New Mechanism for Stress Relaxation During Polymerization," 3M IUCRC Day, Minneapolis, MN, April 2008.
71. M.P. Schwartz, R.K. Sivamani, C.R. Nuttelman, B.D. Fairbanks, R.R. Isseroff, and K.S. Anseth, "Delivery of Human Mesenchymal Stem Cells in a Synthetic Biodegradable Scaffold for Treating Skin Wounds," 3M IUCRC Day, Minneapolis, MN, April 2008.
72. V. Khire and C.N. Bowman, "Surface Modification Using Thiol-ene and Thiol-acrylate Polymerizations," 3M IUCRC Day, Minneapolis, MN, April 2008.
73. J. Garcia, C.N. Bowman, and J.S. Stansbury, "Controlled Formation and Practical Use of Polymer/Polymer Interfaces," 3M IUCRC Day, Minneapolis, MN, April 2008.
74. S. Ye and C.N. Bowman, "Thermal Initiation of Thiol-ene Polymerizations," 3M IUCRC Day, Minneapolis, MN, April 2008.
75. R.R. Hansen, H.D. Sikes, and C.N. Bowman, "Photopolymerization for Signal Amplification in the Detection of Biomolecular Recognition," Annual 2007 AIChE Meeting, Salt Lake City, UT, November 2007.
76. K. Anseth, R.P. Sebra, K.S. Master, and C.N. Bowman, "Photografting Antibodies for Rapid Antigen Detection in Biologically Complex Fluids," Annual 2007 AIChE Meeting, Salt Lake City, UT, November 2007.
77. A. Aguirre, B. Adzima, T.F. Scott, C.J. Kloxin, and C.N. Bowman, "Thermo-Reversibility and Crack-Healing of a Cross-Linked Maleimide/furan Polymer," Annual 2007 AIChE Meeting, Salt Lake City, UT, November 2007.
78. C.N. Bowman, K. Anseth, A. Kannurpatti, A. Guymon, M. Goodner, A.T. Metters, L. Lovell, J. Elliott, K.A. Berchtold, N. Cramer, E. Beckel, A. O'Brien, S. Reddy, and H. Kilambi, "Reaction Engineering of Photopolymerized Systems," Annual 2007 AIChE Meeting, Salt Lake City, UT, November 2007.
79. R.R. Hansen, H.D. Sikes, L.M. Johnson, and C.N. Bowman, "Detection of Codon 12 K-Ras Mutations Using a Photopolymerization-Based Signal Amplification Method," Molecular Diagnostics in Cancer Therapeutic Development Conference, Denver, CO, September 2007.
80. L. Johnson, J. Yang, R. Hansen, and C.N. Bowman, "A High Throughput Assay for the Detection of Cancer Biomarkers via the Novel Redox-Initiated Radical Chain Polymerization Signal Amplification Method," Poster Presentation at Molecular Diagnostics in Cancer Therapeutic Development Conference, Denver, CO, September 2007.
81. N. Cramer, T-Y Lee, J. Carioscia, and C.N. Bowman, "Multicomponent Thiol-Ene Systems for Advanced Applications," Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
82. R.R. Hansen, H.D. Sikes, and C.N. Bowman, "Visible Light Photopolymerization for Detection of Nucleic Acid Hybridization," Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.

83. H. Avens and C.N. Bowman, "Characterization and Kinetic Studies of a Visible Light Initiator Functionalized for Biodetection," Poster Presentation, Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
84. L. Johnson, J. Yang, R. Hansen, and C.N. Bowman, "Detection of Single Base Pair Mutations via the Radical Chain Polymerization Signal Amplification Method," Poster Presentation, Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
85. P. Johnson and C.N. Bowman, "Light Intensity Gradients for (Meth)acrylate Photopolymerization Analysis," Poster Presentation, Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
86. J. Ashley, C.N. Bowman, and R.H. Davis, "Hydrodynamic Selection of Particulate Matter Using Pinched Flow Fractionation," Poster Presentation, Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
87. V. Khire and C.N. Bowman, "Surface Modification Using Thiol-Ene and Thiol-Acrylate Polymerizations," Poster Presentation, Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
88. C. Kloxin and C.N. Bowman, "Stress Relief in Photopolymer Systems," Poster Presentation, Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
89. T. Scott and C.N. Bowman, "Diffraction Unlimited Photolithography," Poster Presentation, Photopolymerization Fundamentals 2007 Meeting, Breckenridge, CO, June 2007.
90. V. Khire and C.N. Bowman, "Gradient Polymer Films on Surfaces Using Thiol-ene and Thiol-acrylate Polymerizations," 233rd National Meeting of the American Chemical Society, Chicago, IL, March 2007.
91. V. Khire, D.S.W. Benoit, K.S. Anseth, and C.N. Bowman, "Surface Modification Using Thiol-ene and Thiol-acrylate Polymerizations," 233rd National Meeting of the American Chemical Society, Chicago, IL, March 2007.
92. C.N. Bowman, T.F. Scott, and R.B. Draughon, "Photoinduced Stress Relaxation and Actuation in Crosslinked Polymers," Annual AIChE Meeting, San Francisco, CA, November 2006.
93. S.R. Reddy, K.S. Anseth, and C.N. Bowman, "Design and Development of Novel Thiol-Vinyl Photopolymerization Chemistries for Advanced Applications," Poster Presentation, Annual AIChE Meeting, San Francisco, CA, November 2006.
94. S.R. Reddy, C.N. Bowman, and K.S. Anseth, "Photopolymerizable Tough Elastomeric Biomaterials," Annual AIChE Meeting, San Francisco, CA, November 2006.
95. M.C. Lawson, K.S. Anseth, and C.N. Bowman, "A Novel Antibacterial Polymer: Orthopaedic and Other Applications," Annual AIChE Meeting, San Francisco, CA, November 2006.
96. V. Khire, A.W. Harant, and C. N. Bowman, "Organic Films on Surfaces Using Thiol-ene Polymerizations," 232nd National ACS Meeting, San Francisco, CA, September 2006.
97. R.R. Hansen, H.D. Sykes, L.M. Johnson, and C.N. Bowman, "Visible Light Photopolymerization for the Detection of Biomolecular Recognition," 232nd National ACS Meeting, San Francisco, CA, September 2006.
98. C. Bowman, H. Lu, B.E. Lehigh, and J.W. Stansbury, "Hybrid Methacrylate/Thiol-ene System for Novel Dental Resins," 84th General Session & Exhibition of the IADR, Brisbane, Australia, June 2006.
99. N. Cramer, J. Carioscia, H. Lu, J.W. Stansbury, and C. Bowman, "Thiol-Enes as Low-Shrinkage, Low-Stress, High-Tg Dental Restorative Materials," 35th Annual Meeting & Exhibition of the AADR, Orlando, FL, March 2006.

- 100.C. Bowman, T. Scott, A. Schneider, R. Draughon, and W.D. Cook, "Photoinduced Stress Relaxation in Crosslinked Polymers," 35th Annual Meeting & Exhibition of the AADR, Orlando, FL, March 2006.
- 101.H. Lu, S.M. Newman, C.N. Bowman, and J.W. Stansbury, "Dimer Acid Derived Dimethacrylate for Ternary Dental Restorative Resins," 35th Annual Meeting & Exhibition of the AADR, Orlando, FL, March 2006.
- 102.H. Lu, B.E. Lehigh, J.W. Stansbury, and C.N. Bowman, "Hybrid Methacrylate/Thiol-ene System for Novel Dental Resins," 35th Annual Meeting & Exhibition of the AADR, Orlando, FL, March 2006.
- 103.T.M. Lovestead, K.A. Berchtold, and C.N. Bowman, "An Investigation of Chain Length Dependent Termination and Reaction Diffusion Controlled Termination during the Free Radical Photopolymerization of Multivinyl Monomers," 28th Australasian Polymer Symposium, Rotorua, New Zealand, February 2006.
- 104.N. Cramer, J. Carioscia, S. Reddy, H. Lu, J. Stansbury, and C. Bowman, "Advanced Polymer Properties from Thiol-Ene Photopolymerizations," 28th Australasian Polymer Symposium, Rotorua, New Zealand, February 2006.
- 105.C.N. Bowman, T.F. Scott, A.D. Schneider, and W.D. Cook, "Photo-induced Alteration of Polymer Network Topology," Pacifichem 2005 Congress, Honolulu, Hawaii, December 2005.
- 106.C.N. Bowman, H. Sikes, R. Hansen, R. Jenison, and K. Rowlen, "Photopolymerization as a Method of Robust, Inexpensive Signal Amplification in the Sensitive Detection of Molecular Recognition Events," Pacifchem 2005 Congress, Honolulu, Hawaii, December 2005.
- 107.H. Sikes and C.N. Bowman, "Synthesis and Characterization of Water-Soluble Macroinitiators Containing Bio-Recognition Elements for Use in Biosensing Applications," Pacifichem 2005 Congress, Honolulu, Hawaii, December 2005.
- 108.H. Sikes, R. Hansen, R. Jenison, K. Rowlen, and C.N. Bowman, "Photopolymerization for Signal Amplification in the Detection of Biomolecular Recognition Events," Annual AIChE Meeting, Cincinnati, OH, November 2005.
- 109.J.A. Cariosia and C.N. Bowman, "Photopolymerizable Thiol/Vinyl Ether Hybrid Materials," Annual AIChE Meeting, Cincinnati, OH, November 2005.
- 110.A. Harant, C.N. Bowman, and V.S. Khire, "Patterned Ultrathin Polymer Films Using Thiol-Ene Polymerizations," Annual AIChE Meeting, Cincinnati, OH, November 2005.
- 111.H.D. Sikes, R. Hansen, R. Jenison, K. Rowlen, and C.N. Bowman, "Photopolymerization for Signal Amplification in the Detection of Biomolecular Recognition Events," Annual AIChE Meeting, Cincinnati, OH, November 2005.
- 112.S.K. Reddy, A.E. Rydholm, K.S. Anseth, and C.N. Bowman, "Degradation of Thiol-Acrylate and Thiol-ene Polymer Systems: Networks Control for Tissue Engineering Applications," 44th Microsymposium on Polymer Gels and Networks, Prague, Czech Republic, July 2005.
- 113.C. N. Bowman, S. K. Reddy, A. E. Rydholm, and K. S. Anseth, "Degradable Thiol-Acrylate and Thiolene Systems: Network Control for Tissue Engineering," 2nd International Conference on Tissue Engineering, Crete, Greece, May 2005.
- 114.C.N. Bowman, K.T. Haraldsson, R.P. Sebra, B.T. Good, J.B. Hutchison, and K.S. Anseth, "Novel Materials and Methods for Microfluidic Device Manufacture," Society for Biomaterials Annual Meeting, Memphis, TN, April 2005.
- 115.N. B. Cramer, S. Reddy, and C.N. Bowman, "Kinetics and Mechanism of Thiol-Ene Photopolymerizations with and without Photoinitiators," Annual AIChE Meeting, Austin, TX, November, 2004.

- 116.A.K. O'Brien and C.N. Bowman, "The Impact of Oxygen on Photopolymerization Kinetics," Annual AIChE Meeting, Austin, TX, November, 2004.
- 117.P.M. Johnson, J.W. Stansbury, and C.N. Bowman, "Rapid analysis of conversion and material properties using photopolymer property gradients," Annual AIChE Meeting, Austin, TX, November, 2004.
- 118.R.P. Sebra, K.S. Masters, K.S. Anseth, and C.N. Bowman, "A Rapid Antigen Detection Assay Using Photografted Whole Antibodies," Annual AIChE Meeting, Austin, TX, November, 2004.
- 119.A.E. Rydholm, S. Reddy, K.S. Anseth, and C.N. Bowman, "Fundamental Studies of Degradable Thiol-Acrylate Photopolymeric Biomaterials as Tissue Engineering and Drug Delivery Scaffolds," Annual AIChE Meeting, Austin, TX, November, 2004.
- 120.C.N. Bowman, "Biofluidic Transport and Molecular Recognition In Polymeric Microdevices," Symbiosis PI Meeting, Vail, Colorado, October, 2004.
- 121.S.K. Reddy, N.B. Cramer, K.S. Anseth, and C.N. Bowman, "Thiol-acrylate Photopolymerizations: Controlled Network Evolution," Polymer Networks 2004 Conference, Bethesda, MD, August, 2004.
- 122.C.N. Bowman, H. Lu, and J.W. Stansbury, "Thiol-ene Dental Materials," 228th ACS National Meeting, Philadelphia, PA, August, 2004.
- 123.J.A. Carioscia, H. Lu, J. W. Stansbury, and C. N. Bowman, "Thiol-ene Oligomers as Dental Restorative Material," 228th ACS National Meeting, Philadelphia, PA, August, 2004.
- 124.H. Kilambi, E.R. Beckel, J.W. Stansbury, and C.N. Bowman, "Kinetic Studies of Novel (Meth)acrylic Monomers," 228th ACS National Meeting, Philadelphia, PA, August, 2004.
- 125.C.N. Bowman, N.B. Cramer, and S.K. Reddy, "Kinetics and Mechanism of Thiol-ene Photopolymerizations with and without Photoinitiators," 228th ACS National Meeting, Philadelphia, PA, August, 2004.
- 126.S.K. Reddy, N.B. Cramer, A. Rydholm, K.S. Anseth, and C.N. Bowman, "Controlled Network Architectures through Thiol-ene and Thiol-acrylate Photopolymerizations," 228th ACS National Meeting, Philadelphia, PA, August, 2004.
- 127.A.K. O'Brien and C.N. Bowman, "The Impact of Oxygen on Photopolymerization Kinetics and Polymer Structure," 228th ACS National Meeting, Philadelphia, PA, August, 2004.
- 128.M.A. Rice, P. Martens, S.J. Bryant, M.J. Mahoney, C.N. Bowman, and K.S. Anseth, "Photopolymerization of Synthetic Hydrogel Niches for 3D Cell Culture and Tissue Regeneration," 228th ACS National Meeting, Philadelphia, PA, August, 2004.
- 129.N.B. Cramer, S.K. Reddy, and C.N. Bowman, "Structures, Reactions, and Applications of Thiol-Ene Photopolymerizations," World Polymer Congress MACRO 2004, Paris, France, July 4-9, 2004.
- 130.C.N. Bowman, H. Lu, J.W. Stansbury "Probing the Fundamental Relationship Between Polymerization Shrinkage Stress and Degree of Conversion," 7th World Biomaterials Congress, Sydney, Australia, May, 2004.
- 131.C.N. Bowman, H. Lu, J.W. Stansbury, and N.B. Cramer, "Investigation of Thiol-Ene System for Novel Dental Restorative Resins," 7th World Biomaterials Congress, Sydney, Australia, May, 2004.
- 132.H. Sikes and C.N. Bowman, "Photopolymerization for Amplification and Detection of Biomolecular Recognition Events," 7th World Biomaterials Congress, Sydney, Australia, May, 2004.

- 133.P.M. Johnson, T.B. Reynolds, C.N. Bowman, and J.W. Stansbury, "Rapid Analysis of Photopolymer Conversion as a Function of Composition and Exposure Time," American Chemical Society Spring Conference, Division of Polymer Chemistry, Anaheim, CA, March, 2004.
- 134.S.M. Newman, J.W. Stansbury, and C.N. Bowman, "Synthesis and Photopolymerization Kinetics of Hydroxymethacrylates," International Association for Dental Research Annual Meeting, Honolulu, HI, March, 2004.
- 135.J.A. Carioscia and C.N. Bowman, "Reactive Oligomeric Thiol and Ene Materials as Dental Restorative Resins," International Association for Dental Research Annual Meeting, Honolulu, HI, March, 2004.
- 136.A.K. O'Brien and C.N. Bowman, "The Impact of Oxygen on Photopolymerized Materials," International Association for Dental Research Annual Meeting, Honolulu, HI, March, 2004.
- 137.H. Lu, J.W. Stansbury, and C.N. Bowman, "Filler Effect on Shrinkage Stress and In Situ Polymerization Kinetics," International Association for Dental Research Annual Meeting, Honolulu, HI, March, 2004.
- 138.C.N. Bowman, "Novel (Meth)Acrylate Monomers for Ultrarapid Polymerization and Enhanced Polymer Properties," 20th Annual Scientific Meeting of the Colorado Section, American Association for Dental Research," Denver, CO, February, 2004.
- 139.S.M. Newman, J.W. Stansbury, and C.N. Bowman, "Synthesis and Photopolymerization Kinetics of Hydroxymethacrylates," 20th Annual Scientific Meeting of the Colorado Section, American Association for Dental Research," Denver, CO, February, 2004.
- 140.J.A. Carioscia and C.N. Bowman, "Reactive Oligomeric Thiol and Ene Materials as Dental Restorative Resins," 20th Annual Scientific Meeting of the Colorado Section, American Association for Dental Research," Denver, CO, February, 2004.
- 141.H. Lu and C.N. Bowman, "Towards the Elucidation of Polymerization Shrinkage Stress Development & Relaxation in Dental Composites," 20th Annual Scientific Meeting of the Colorado Section, American Association for Dental Research," Denver, CO, February, 2004.
- 142.C.N. Bowman, H. Lu, and J.W. Stansbury, "Novel Investigation of Thiol-ene System for Future Dental Restorative Resins," 20th Annual Scientific Meeting of the Colorado Section, American Association for Dental Research," Denver, CO, February, 2004.
- 143.R.P. Sebra III, H.M. Simms, K.S. Anseth, and C.N. Bowman, "Living Radical Photopolymerization for Constructing Polymeric 3D Microfluidic Devices with Spatially Controlled Grafted Functionalities," AIChE National Meeting, San Francisco, CA, November, 2003.
- 144.A.W. Harant and C.N. Bowman, "In Situ Scanning Probe Microscopy of Solvent Vapor Annealed Block Copolymer Films on Organosilane Self-Assembled Monolayers," AIChE National Meeting, San Francisco, CA, November, 2003.
- 145.J.B. Hutchison, K.T. Haraldsson, C.J. Hawker, and C.N. Bowman, "Novel Technologies for Three-Dimensional Polymeric Microsensors," AIChE National Meeting, San Francisco, CA, November, 2003.
- 146.E.R. Beckel, J. Nie, J.W. Stansbury, and C.N. Bowman, "Effect of Aryl Substitution on the Polymerization Rate of Novel Monovinyl Acrylate Monomers," AIChE National Meeting, San Francisco, CA, November, 2003.
- 147.T.M. Lovestead and C.N. Bowman, "Non-Classical Termination Kinetics in Multivinyl Free Radical Photopolymerizations," AIChE National Meeting, San Francisco, CA, November, 2003.
- 148.T.M. Lovestead and C.N. Bowman, "Comprehensive Modeling and Advanced Experimental Characterization of Photopolymerization Kinetics," 2003 Fall Meeting of the Industry/University

Cooperative Research Center for Fundamentals and Applications of Photopolymerizations, Boulder, CO, September, 2003.

- 149.A.K. O'Brien and C.N. Bowman, "The Impact of Oxygen on Photopolymerization Kinetics and Polymer Structure," 2003 Fall Meeting of the Industry/University Cooperative Research Center for Fundamentals and Applications of Photopolymerizations," Boulder, CO, September, 2003.
- 150.S.K. Reddy, N.B. Cramer, T. Cross, R. Raj, and C.N. Bowman, "Polymer Derived Ceramic Materials from Thiol-ene Photopolymerizations," American Chemical Society Fall Conference, Division of Polymer Chemistry, New York, NY, September, 2003.
- 151.A.W. Harant and C.N. Bowman, "Nanopatterning Self-assembled Monolayers Using Block Copolymer Lithography," American Chemical Society Fall Conference, Division of Polymer Chemistry, New York, NY, September, 2003.
- 152.A.K. O'Brien and C.N. Bowman, "Comprehensive Modeling of Photopolymerization Kinetics," 26th Australasian Polymer Symposium, Noosa, Queensland, Australia, July, 2003.
- 153.N.B. Cramer, S.K. Reddy, and C.N. Bowman, "Structures, Reactions, and Applications of Thiol-ene Photopolymerizations," 26th Australasian Polymer Symposium, Noosa, Australia, July, 2003.
- 154.T.M. Lovestead and C.N. Bowman, "Multivinyl Free Radical Photopolymerization Kinetics," 26th Australasian Polymer Symposium, Noosa, Australia, July, 2003.
- 155.K.T. Haraldsson, J.B. Hutchison, R.P. Sebra III, H. Simms, R. Davis, C.N. Bowman and B. Good, "Fabrication of Photopolymeric Microfluidic Devices and Components," 26th Australasian Polymer Symposium, Noosa, Australia, July, 2003.
- 156.E.R. Beckel, H. Lu, J. Nie, J.W. Stansbury, and C.N. Bowman, "Fundamental Studies of Novel (Meth)Acrylate Monomers for Dental Restorative Applications," 81st General Session of the International Association for Dental Research, Goteborg, Sweden, July, 2003.
- 157.H. Lu, J.W. Stansbury, S.H. Dickens, F.C. Eichmiller, and C.N. Bowman, "Effect of Curing Protocol on Polymerization Shrinkage Stress Development," 81st General Session of the International Association for Dental Research, Goteborg, Sweden, July, 2003.
- 158.A. Harant and C.N. Bowman, "Nanopatterning Surface Chemistry with Block Copolymer Lithography of Organosilane Self-Assembled Monolayers," Gordon Research Conference, Polymers East, South Hadley, MA, June, 2003.
- 159.H. Sikes and C.N. Bowman, "Use of a Photopolymerization Reaction to Detect Hybridization to a DNA Microarray," Gordon Research Conference, Polymers East, South Hadley, MA, June, 2003.
- 160.N.B. Cramer and C.N. Bowman, "Crosslinking in Thiol-acrylate Photopolymerizations," American Chemical Society Spring Conference, Division of Polymer Chemistry, New Orleans, LA, March, 2003.
- 161.K.A. Berchtold, T.W. Randolph, C.N. Bowman, "Using EPR Spectroscopy in Conjunction with FT-NIR Spectroscopy Study Cross-linking Photopolymerization Kinetics," American Chemical Society Spring Conference, Division of Polymeric Materials: Science and Engineering, New Orleans, LA, March, 2003
- 162.R.P. Sebra III, J.B. Hutchison, K.T. Haraldsson, K.S. Anseth, C.N. Bowman, "Living Radical Photopolymerizations to Modify Surfaces in Microfluidic Devices for Biological Applications," American Chemical Society Spring Conference, Division of Polymer Chemistry, New Orleans, LA, March, 2003
- 163.E.R. Beckel, K.A. Berchtold, J. Nie, H. Lu, J.W. Stansbury, C.N. Bowman, "Novel (Meth)Acrylate Monomers for Ultrarapid Polymerization and Enhanced Polymer Properties," American Chemical Society Spring Conference, Division of Polymer Chemistry, New Orleans, LA, March, 2003

- 164.N.B. Cramer, T. Davies, A.K. O'Brien, C.N. Bowman, "Kinetics and Modeling of Thiol-ene Photopolymerizations," American Chemical Society Spring Conference, Division of Polymer Chemistry, New Orleans, LA, March, 2003.
- 165.H. Lu, S.H. Dickens, F.C. Eichmiller, J.W. Stansbury, C.N. Bowman, "Novel Method of Simultaneous Measurement of Polymerization Shrinkage Stress and Conversion," International Association of Dental Research, San Antonio, TX, March, 2003.
- 166.S.M. Newman, J.W. Stansbury, C.N. Bowman, D.M. Knauss, "Fast-reacting Novel Monomethacrylates," International Association of Dental Research Annual Meeting, San Antonio, TX, March, 2003.
- 167.C.N. Bowman, H. Lu, J. Nie, J.W. Stansbury, "Development of Rapidly Polymerizing Monomethacrylates as Reactive Diluents," International Association of Dental Research Annual Meeting, San Antonio, TX, March, 2003.
- 168.B.T. Good, R.H. Davis, and C.N. Bowman, "Fabrication of Polymeric Microfluidic Devices," University of Colorado Chemical Engineering Student Annual Research Symposium," Boulder, CO, February, 2003.
- 169.J.W. Stansbury, M. Trujillo, C.N. Bowman, "Development of pH-responsive Hydrogels as Biomaterials," International Association of Dental Research Annual Meeting, San Antonio, TX, March, 2003.
- 170.A.K. O'Brien and C.N. Bowman, "The Impact of Oxygen on Photopolymerization Kinetics and Polymer Structure," 2003 Fall Meeting of the Industry/University Cooperative Research Center for Fundamentals and Applications of Photopolymerizations," Iowa City, IA, January, 2003.
- 171.C.N. Bowman, K.S. Anseth, J.A. Burdick, T.M. Lovestead, "Understanding Chain Length Effects in Multivinyl Photopolymerizations Through Modeling and GPC Investigation of Degradable Networks," AIChE 2002 Annual Meeting, Indianapolis, IN, November, 2002.
- 172.J.A. Burdick, T.M. Lovestead, K.S. Anseth, C.N. Bowman, "Experimental Investigation of Heterogeneity in Thick Networks Formed by the Photoinitiated Polymerization of Divinyl Monomer," AIChE 2002 Annual Meeting, Indianapolis, IN, November, 2002.
- 173.C.N. Bowman, K.A. Berchtold, E.R. Beckel, J. Nie, B. Hacıoglu, "Development of Ultrarapid Polymerization Systems," AIChE 2002 Annual Meeting, Indianapolis, IN, November, 2002.
- 174.A.W. Harant, T.A. Winningham, S.G. Whipple, N.A. Clark, K. Douglas, C.N. Bowman, "Nanopatterning Silicon with Solvent Vapor-Annealed Block Copolymer Films," AIChE 2002 Annual Meeting, Indianapolis, IN, November, 2002.
- 175.T.K. Haraldsson, R.P. Sebra III, J.B. Hutchison, N. Luo, K.S. Anseth, C.N. Bowman, "3D-Microfluidic Devices Using LRPP," AIChE 2002 Annual Meeting, Indianapolis, IN, November, 2002.
- 176.M.E. Staben, C.N. Bowman, "Modeling of Particle Transport in Narrow Microfluidic Channels," Low Reynolds Number Hydrodynamics Session of the AIChE 2002 Annual Meeting, Indianapolis, IN, November, 2002.
- 177.T.M. Lovestead, J.A. Burdick, C.N. Bowman, K.S. Anseth, "Coupling GPC and Modeling to Investigate Kinetic Chain Length in Multivinyl Photopolymerized Degradable Networks," American Chemical Society Conference, Boston, MA, August, 2002.
- 178.C.N. Bowman, "Living Radical Photopolymerizations for Micropatterning," American Chemical Society Conference, Boston, MA, August, 2002.
- 179.R.P. Sebra III, K.T. Haraldsson, N. Luo, J.B. Hutchison, K.S. Anseth, and C.N. Bowman, "3D-Microfluidic Devices Using Liquid Polymer Precursors," American Chemical Society Conference, Boston, MA, August, 2002.

- 180.T.M. Lovestead and C.N. Bowman, "Modeling the Effects of Chain Length on the Termination Kinetics of Multivinyl Photopolymerizations," Polymerization Fundamentals 2002 Conference, Breckenridge, CO, June, 2002.
- 181.A.K. O'Brien and C.N. Bowman, "The Impact of Oxygen on Photopolymerization Kinetics and Polymer Structure," Polymerization Fundamentals 2002 Conference, Breckenridge, CO, June, 2002.
- 182.C.N. Bowman, "Using EPR Spectroscopy in Conjunction with Near-IR Spectroscopy to Study the Kinetics of Crosslinking Photopolymerization," RadTech 2002 Conference, Indianapolis, IN, April, 2002.
- 183.C.N. Bowman, "Effect Of Cure Rate On The Network Evolution And Mechanical Properties Of Highly Crosslinked Photopolymers," RadTech 2002 Conference, Indianapolis, IN, April, 2002.
- 184.C.N. Bowman, A.K. O'Brien, "Modeling Spatial Effects in Photopolymerizations," American Physical Society 2002 Annual Conference, San Antonio, TX, March, 2002.
- 185.C.N. Bowman, "Kinetic Evaluation of Monovinyl Polymerization Systems that Exhibit Rapid Polymerization Behavior and Enhanced Polymer Properties," RadTech 2002 Conference, Indianapolis, IN, April, 2002.
- 186.C.N. Bowman, "Molecular Design as a Tool for Understanding Free Radical Photopolymerization Reactions," 25th Australasian Polymer Symposium, Armidale, Australia, February, 2002.
- 187.N.B. Cramer, J. Fort, and C.N. Bowman, "Properties and Mechanisms of Thiol-ene and Thiol-acrylate Photopolymerizations," 25th Australasian Polymer Symposium, Armidale, Australia, February, 2002.
- 188.T.A. Lovestead, K.A. Berchtold, C.N. Bowman, "Modeling Chain Length Effects on the Termination Kinetics in Multivinyl Free Radical Photopolymerizations," AIChE 2001 Annual Meeting, Reno, NV, November, 2001.
- 189.K.A. Berchtold, T.M. Lovestead, and C.N. Bowman, "A Study of Chain Length Dependent Termination in Photopolymerizations of (Meth)acrylic Monomers," RadTech Europe 2001 Conference, Basel, Switzerland, October, 2001.
- 190.N.B. Cramer, and C.N. Bowman, "Investigation into Thiol-ene and Thiol-acrylate Photopolymerizations," RadTech Europe 2001 Conference, Basel, Switzerland, October, 2001.
- 191.C.N. Bowman, "Formation-Structure-Property Relationships in Polymeric Hydrogels," American Chemical Society Conference, Chicago, IL, August, 2001.
- 192.C.N. Bowman, K.S. Anseth, N. Luo, L.G. Lovell, H. Lu, "Photopolymerized Coatings and Surface Modifications," American Chemical Society Conference, Chicago, IL, August, 2001.
- 193.P. Martens, T.V. Holland, C.N. Bowman, K.S. Anseth, "Synthesis and Characterization of Degradable Poly(vinyl alcohol) Hydrogels," American Chemical Society Conference, Chicago, IL, August, 2001.
- 194.C.N. Bowman, H. Lu, L.G. Lovell, "Structural Evolution in Highly Crosslinked Polymers," European Polymer Federation Congress, Eindhoven, The Netherlands, July, 2001.
- 195.A. Harant and C.N. Bowman, "Atomic Force Microscopy of Solvent Vapor Annealed Block Copolymer Films on Bare Glass and Organosilane Self-Assembled Monolayers," Gordon Research Conference, Liquid Crystals, July, 2001.
- 196.T.M. Lovestead, K.A. Berchtold, and C.N. Bowman, "Modeling the Effects of Chain Length on the Termination Kinetics in Crosslinking Photopolymerizations," Gordon Research Conference, Polymers East, New London, NH, July, 2001.

- 197.N. Cramer and C.N. Bowman, "Kinetics of Thiol-ene and Thiol-acrylate Photopolymerizations," Gordon Research Conference Polymers East, New London, NH, July, 2001.
- 198.B.T. Good, D.A. Rager, and C.N. Bowman, "Hydrogel Micropump for Microfluidic Devices," Gordon Research Conference, Coatings and Films, July, 2001.
- 199.L.G. Lovell, H. Lu, C.N. Bowman, "The Effect of Cure Rate on the Mechanical Properties of Highly Crosslinked Biomaterials," Society for Biomaterials 27th Annual Meeting, St. Paul, MN, April, 2001.
- 200.K.A. Berchtold, J. Nie, J.W. Stansbury, C.N. Bowman, "Structural Effects on the Cure Characteristics of Functionalized Methacrylate Monomers," Society for Biomaterials 27th Annual Meeting, St. Paul, MN, April, 2001.
- 201.J.E. Elliott, T.M. Lovestead, K.A. Berchtold, C.N. Bowman, "Polymerization Kinetics and Network Formation of Ophthalmological Materials," Society for Biomaterials 27th Annual Meeting, St. Paul, MN, April, 2001.
- 202.P.J. Martens, A.T. Metters, C.N. Bowman, K.S. Anseth, "Modeling the Degradation of Hydrogels Formed from Multi-Functional Macromers," Society for Biomaterials 27th Annual Meeting, St. Paul, MN, April, 2001.
- 203.H. Lu, L.G. Lovell, and C.N. Bowman, "The Effects of Heterogeneity and Curing Temperature on the Mechanical Properties of Light-Cured Resins," American Association for Dental Research, Chicago, IL, March, 2001.
- 204.S.M. Newman, L.G. Lovell, M.M. Donaldson, and C.N. Bowman, "Flexural Strength vs. Conversion vs. Initiation Rate for BisGMA/TEGDMA," American Association for Dental Research, Chicago, IL, March, 2001.
- 205.B. Hacıoglu, A.K. Poshusta, K. S. Anseth, and C.N. Bowman, "MALDI-TOF MS Characterization of Crosslinked Degradable Polymers," Industry/University Cooperative Research Center Winter Meeting, Iowa City, IA, January, 2001.
- 206.C.N. Bowman, K.S. Anseth, and A.T. Metters, "Predicting the Release of High Molecular Weight Solutes from Degradable Poly(ethylene glycol)-Based Networks," North American Membrane Society Meeting, Boulder, CO, 2000.
- 207.C.N. Bowman, K.S. Anseth, A.T. Metters, "Predicting Degradation Behavior of PEG-b-PL1 Hydrogels," World Polymer Congress, IUPAC Macro, Warsaw, Poland, 2000.
- 208.C.N. Bowman, K.A. Berchtold, L.G. Lovell, J. Nie, and B. Hacıoglu, "The Significance of Chain-Length Dependent Termination in the Photopolymerization of Multifunctional(Meth)acrylates," IUPAC Polymer Meeting, Warsaw, Poland, 2000.
- 209.C.N. Bowman and K.A. Berchtold, "Using EPR Spectroscopy in Conjunction with Near-IR Spectroscopy to Study the Kinetics of Crosslinking Photopolymerizations," 2000 AIChE National Meeting, Los Angeles, CA, November 2000.
- 210.C.N. Bowman, J.E. Elliott, and M. MacDonald, "Network Formation in Crosslinked Hydrogels," 2000 AIChE National Meeting, Los Angeles, CA, November 2000.
- 211.C.N. Bowman, K.A. Berchtold, J.R. Brown, "A Study of the Effects of Composition on the Photopolymerization Kinetics of a Typical Dental Resin using EPR Spectroscopy," 2000 AIChE National Meeting, Los Angeles, CA, November 2000.
- 212.K.A. Berchtold, J.R. Brown, and C.N. Bowman, "A Study of the Effects of Composition on the Photopolymerization Kinetics of a Typical Dental Resin using Electron Paramagnetic Resonance Spectroscopy," AIChE National Meeting, Los Angeles, CA, November 2000.

- 213.C.N. Bowman, H. Lu, L.G. Lovell, and J.W. Stansbury, "The Effect of Cure Rate on the Network Structure of Crosslinked Dimethacrylate Systems," AIChE National Meeting, Los Angeles, CA, November 2000.
- 214.C.N. Bowman, H. Lu, L.G. Lovell, J.W. Stansbury, "The Effect of Cure Environment and Cure Rate on the Mechanical Properties of Crosslinked Photopolymers," Gordon Research Conference on Polymers (East), New London, CT, June 2000.
- 215.C.N. Bowman and K.A. Berchtold, "A Study of Termination Kinetics of Crosslinking Photopolymerizations using FTIR and EPR Spectroscopy," Gordon Research Conference on Polymers (East), New London, CT, June 2000.
- 216.C.N. Bowman and T.E. Elliott, "Primary Cyclization During the Network Formation of Crosslinked Polymers," Gordon Research Conference on Polymers (East), New London, CT, June 2000.
- 217.C.N. Bowman, L.G. Lovell, and S.M. Newman, "Degree of Cure with a Quick Curing Light," IADR International Meeting, Washington, DC, April 2000.
- 218.C.N. Bowman, L.G. Lovell, H. Lu, J.W. Stansbury, "The Effect of Cure Rate on the Mechanical Properties of Dental Resins," IADR International Meeting, Washington, DC, April 2000.
- 219.B. Hacıoglu and C.N. Bowman, "A Novel Way of Characterizing Photocrosslinked Systems," RadTech Europe 99, Berlin, Germany, November 1999.
- 220.B.E. Elliott and C.N. Bowman, "Photopolymerization of Poly(ethylene glycol) Diacrylate / Cation Complexes: Synthesis of Pseudocrown Ethers," RadTech Europe 99, Berlin, Germany, November 1999.
- 221.J.E. Elliott and C.N. Bowman, "Primary cyclization in Photopolymerization of Crosslinked Polymers," RadTech Europe 99, Berlin, Germany, November 1999.
- 222.J.E. Gibson, L.G. Lovell, and C.N. Bowman, "Primary Cyclization Reactions in Crosslinked Dental Materials," IADR International Meeting, Vancouver BC, March 1999.
- 223.J.E. Elliott and C.N. Bowman, "Crosslinking and Primary cyclization Reactions in Photopolymers," Gordon Research Conference on Coatings & Films, New London, NH, July 1999.
- 224.J.E. Gibson, J.W. Anseth and C.N. Bowman, "Network Formation in Crosslinked Polymer Hydrogels " AIChE National Meeting, Dallas TX, November, 1999.
- 225.L.G. Lovell, Y.A. Oguntemein, and C.N. Bowman, "Mechanical Properties and Structural Heterogeneity of Dental Resins," IADR International Meeting, Vancouver BC, March 1999.
- 226.L. G. Lovell and C. N. Bowman, "Polymerization Behavior of Photocured Dimethacrylate Systems," Gordon Research Conference on Coatings and Films, New London NH, July 1999.
- 227.L. G. Lovell, J. W. Stansbury, D. C. Sympes, and C. N. Bowman, " Kinetic Studies of Photoinitiated Dimethacrylate Copolymers," RadTech Europe 99 Conference for Radiation Curing, Berlin, Germany, November 1999.
- 228.A.T. Metters, K.S. Anseth, and C.N. Bowman, "Impact of Polymerization Kinetics on Degradation Behavior of Hydrogels," AIChE Annual Fall Meeting, Dallas, TX; November 1999.
- 229.A.T. Metters, K.S. Anseth, and C.N. Bowman, "Optimization of Synthetic Hydrogel Biomaterials Through Control of Microstructure," Biomedical Engineering Society-Engineering in Medicine and Biology Society (BMES-EMBS) 1st Annual Joint Meeting, Atlanta, GA; October 1999.
- 230.A.T. Metters, K.S. Anseth, and C.N. Bowman, "Fundamental Studies of Biodegradable Hydrogels as Cartilage Replacement Materials," 36th Annual Rocky Mountain Bioengineering Symposium: Copper Mountain, CO; April 1999.

- 231.A.T. Metters, K.S. Anseth, and C.N. Bowman, "Fundamental Studies of Biodegradable Hydrogels as Cartilage Replacement Materials," Materials Research Society Spring Meeting: San Francisco, CA; April 1999.
- 232.K.A. Berchtold, C.N. Bowman, "Termination Kinetics of Crosslinking Photopolymerizations of (Meth)Acrylic Monomers using FTIR and EPR Spectroscopy," RadTech Europe 99, Berlin, Germany, November 1999.
- 233.K.A. Berchtold, C.N. Bowman, "Kinetics of Crosslinking Photopolymerizations of (Meth)Acrylic Monomers," AIChE National Meeting, Dallas, TX November 1999 (Materials Science and Engineering Division Poster Contest, First Place).
- 234.K.A. Berchtold, C.N. Bowman, "Termination Kinetics of Crosslinking Photopolymerizations of (Meth)Acrylic Monomers," NIST Polymers Division Seminar, Gaithersburg, MD, June 1999.
- 235.K.A. Berchtold., C.N. Bowman, "Termination & Radical Populations in Photopolymerizations of Multifunctional Monomers," Gordon Research Conference on Coatings & Films, New London, NH, July 1999.
- 236.H. Ma, C.N. Bowman, R.H. Davis, "A Novel Photoinduced Graft Living Polymerization for Membrane Surface Modification" International Congress on Membranes and Membrane Processes, Toronto, Canada, June, 1999.
- 237.H. Ma, C.N. Bowman, R.H. Davis, "Membrane Fouling Reduction for Bacterial Suspensions by Backpulsing and Membrane Surface Modification" Colorado Biotechnology Symposium, Boulder, CO, September, 1999.
- 238.J. Nie, L.G. Lovell, and C.N.Bowman, "The Significance of Chain Length Dependent Termination on the Photopolymerization of Multifunctional (Meth)Acrylates," ACS National Meeting, New Orleans, LA, August, 1999.
- 239.L.G. Lovell, J. Nie and C.N. Bowman, "Chain Length Dependent Termination in the Polymerization of Highly Cross-linked Multifunctional Methacrylates" AIChE National Meeting, Dallas TX, November 1999.
- 240.C.N. Bowman and J.E. Gibson, "Primary Cyclization Reactions in Crosslinked Polymers," AIChE National Meeting, Miami, FL, November 1998.
- 241.C.N. Bowman, M. Pasmore, and P.W. Todd, "Effects of Ultrafiltration Membrane Surface Characteristics on Biofilm Fouling," AIChE National Meeting, Miami, FL, November 1998.
- 242.C.N. Bowman and J.E. Gibson, "Effects of Solvent on Crosslinked Polymer Systems," AIChE National Meeting, Miami, FL, November 1998.
- 243.A.B. Scranton, C.N. Bowman, and B.J. Elliott, "Polymeric Pseudocrown Ether Membranes for Adsorption and Separation of Metal Ions," AIChE National Meeting, Miami, FL, November 1998.
- 244.C.A. Guymon and C.N. Bowman, "Influence of Polymerization Conditions on Performance in Polymer/Ferroelectric Liquid Crystal Composite Thin Films," American Chemical Society National Meeting, August 1998.
- 245.R.T. Pogue, C.N. Bowman, L.V. Natarajan, V.P. Tondiglia, R.L. Sutherland, and T.J. Bunning, "Examining the Role of Cure Temperature on PDLC Films Prepared from High Functionality Films," American Chemical Society National Meeting, August 1998.
- 246.C.A. Guymon and C.N. Bowman, "Formation of PSFLC Thin Films Using a Fluorinated Acrylate," American Chemical Society National Meeting, August 1998.

- 247.J.E. Gibson and C.N. Bowman, "Primary Cyclization Reactions in Crosslinked Polymers," American Chemical Society National Meeting, August 1998.
- 248.L.G. Lovell, A.R. Kannurpatti and C.N. Bowman, "Heterogeneity and Properties of Highly Crosslinked Photopolymers," American Chemical Society National Meeting, August 1998.
- 249.L.G. Lovell, D.C. Syrpes, J.W. Stansbury and C.N. Bowman, "Dimethacrylate Dental Resins: The Effect of Comonomer on the Polymerization Kinetics," American Chemical Society National Meeting, August 1998.
- 250.R. H. Davis, A.R. Kannurpatti, W.D. Mores, M.B. Linck, C.N. Bowman, and H. Ma, "Combined Chemical and Hydrodynamic Approach to Fouling Reduction in Membrane Based Water Treatment," AIChE National Meeting, Los Angeles, CA, November 1997.
- 251.C.A. Guymon and C.N. Bowman, "Polymerization Behavior and Reaction Kinetics During the Polymerization of Polymer/Smectic Liquid Crystal Composites," AIChE National Meeting, Los Angeles, CA, November 1997.
- 252.C.A. Guymon and C.N. Bowman, "Electro-Optic Properties and Polymeric Structure of Thin Film Polymer Stabilized Ferroelectric Liquid Crystals," AIChE National Meeting, Los Angeles, CA, November 1997.
- 253.M.D. Goodner and C.N. Bowman, "Kinetic Modeling of Primary Radical Termination and Optical Thickness in Radical Photopolymerizations," AIChE National Meeting, Los Angeles, CA, November 1997.
- 254.B.J. Elliott, A.B. Scranton, and C.N. Bowman, "Synthesis of Pseudocrown Ether Membranes for Adsorption and Separation of Metal Ions," AIChE National Meeting, Los Angeles, CA, November 1997.
- 255.M.D. Goodner and C.N. Bowman, "Modeling and Experimental Studies of Light Intensity and Initiator Effects on Photopolymerization Rate," Fall ACS National Meeting, Las Vegas, NE, September 1997.
- 256.C.A. Guymon and C.N. Bowman, "Polymerization Kinetics in the Formation of Polymer Stabilized FLCs," FLC 97, France, July 1997.
- 257.M.D. Goodner and C.N. Bowman, "Simulation of Diffusion Controlled Radical Photopolymerizations," Gordon Conference on Elastomers, Networks and Gels, New London, New Hampshire, July 1997.
- 258.M.D. Goodner and C.N. Bowman, "Experiments and Modeling of the Photopolymerization Kinetics of 2-Hydroxyethyl Methacrylate," Spring ACS National Meeting, San Francisco, CA, April 1997.
- 259.C.A. Guymon and C.N. Bowman, "Monomer Segregation in Polymerization of Polymer Stabilized Ferroelectric Liquid Crystals," AIChE National Meeting, Chicago, IL, November 1996.
- 260.C.A. Guymon and C.N. Bowman, "Photopolymerization Kinetics and Monomer Heterogeneity during Formation of Polymer Gels in Ferroelectric Liquid Crystals," Networks 96 Meeting, Doorn, The Netherlands, September 1996.
- 261.C.A. Guymon and C.N. Bowman, "Monomer Heterogeneity Before Polymerization in Polymer Stabilized Ferroelectric Liquid Crystals," American Chemical Society National Meeting, Orlando, FL, August 1996.
- 262.B.M. Smith, P. Todd, and C.N. Bowman, "An Empirical and Modeling Study of Speciation for Reactive Dendrimeric Polymers in Solution," American Chemical Society National Meeting, Orlando, FL, August 1996.
- 263.K.L. Thunhorst, R.D. Noble, and C.N. Bowman, "Preparation of Functionalized Polymers by Reactions of Poly(Vinyl Benzyl Chloride)," American Chemical Society National Meeting, Orlando, FL, August 1996.
- 264.R. Kannurpatti, S. Lu and C. N. Bowman, "Reaction Behavior and Kinetic Modeling Studies of Iniferter Polymerizations," American Chemical Society National Meeting, New Orleans, LA, March 1996.

- 265.R. Kannurpatti, K. J. Anderson, J. W. Anseth and C. N. Bowman, "Use of Iniferters to Study the Structural Evolution and Properties of Highly Crosslinked Polymer Networks," American Chemical Society National Meeting, New Orleans, LA, March 1996.
- 266.A. Guymon, E. N. Hoggan, and C. N. Bowman, "Kinetics of Polymerization During the Formation of Polymer Stabilized Ferroelectric Liquid Crystals," American Chemical Society National Meeting, New Orleans, LA, March 1996.
- 267.A.R. Kannurpatti, K.J. Anderson, J.W. Anseth, and C.N. Bowman, "Characterization of Structure and Properties of Crosslinked Polymer Networks," AIChE National Meeting, Miami Beach, FL, November 1995.
- 268.K. S. Anseth, C. Noffsinger and C. N. Bowman, "Termination Kinetics During Crosslinking Photopolymerizations of Multifunctional Monomers," AIChE National Meeting, Miami Beach, FL, November 1995.
- 269.K. S. Anseth, A. R. Kannurpatti and C. N. Bowman, "Structural Evolution of Crosslinked Polymer Films," AIChE National Meeting, Miami Beach, FL, November 1995.
- 270.K. L. Thunhorst, C. N. Bowman and R. D. Noble, "Heavy Metal Ion Transport Using Fixed Site Carrier Membranes," American Institute of Chemical Engineers Annual Meeting, Miami Beach, FL, November 1995.
- 271.A. Guymon, E. N. Hoggan, and C. N. Bowman, "Studies of a Polymer Dispersed Ferroelectric Liquid Crystal," Materials Research Society Spring Meeting, San Francisco, CA, April 1995.
- 272.K.S. Anseth and C.N. Bowman, "Photopolymerizations of Dimethacrylate Coatings: Kinetics and Volume Relaxation Effects," ACS National Meeting, Anaheim, CA, March 1995.
- 273.K.S. Anseth, M. Goodner, and C.N. Bowman, "Optimization of Comonomer Composition for Maximization of Monomer Conversion and Material Properties in Dental Restorative Materials," ACS National Meeting, Anaheim, CA, March 1995.
- 274.M.D. Goodner, S.M. Newman, and C.N. Bowman, "Effects of Comonomer Composition on Photopolymerizations of Multiethylene Glycol Dimethacrylates," American Association of Dental Research, San Antonio, March 1995.
- 275.A. Guymon, E. N. Hoggan, and C. N. Bowman, "Polymerization Behavior During the Formation of a Polymer Dispersed Ferroelectric Liquid Crystal," Joint Meeting of the Northwest and Rocky Mountain Regions of the American Chemical Society, Park City, UT, June 1995.
- 276.A. Guymon, E. N. Hoggan, and C. N. Bowman, "Polymer Network Influence in a Polymer Dispersed Ferroelectric Liquid Crystal," Gordon Conference on Liquid Crystals, Wolfeboro, NH, June 1995.
- 277.K.S. Anseth and C.N. Bowman, "Structural Evolution of Highly Crosslinked Polymer Networks," Materials Research Society 1994 Fall Meeting, Boston, MA, November 1994 (Won outstanding graduate student award).
- 278.A.R. Kannurpatti and C.N. Bowman, "Photopolymerized Crosslinked Polymers as Stable Second Order Nonlinear Optical Materials," AIChE National Meeting, San Francisco, CA, November 1994.
- 279.C.A. Guymon, E. Hoggan, and C.N.Bowman, "Studies of a Polymer Dispersed Ferroelectric Liquid Crystal," AIChE National Meeting, San Francisco, CA, November 1994. (Awarded Second Place in the Polymeric Materials Posters)
- 280.K.L. Thunhorst, R.D. Noble, and C.N. Bowman, "Facilitated Transport Membranes for Removal of Heavy Metals," AIChE National Meeting, San Francisco, CA, November 1994.

- 281.K.S. Anseth, M.D. Rothenberg, C.M. Wang, L.M. Kline, and C.N. Bowman, "Effects of Heterogeneity on the Polymerization of Multifunctional Monomers," AIChE National Meeting, San Francisco, CA, November 1994.
- 282.L.M. Kline, K.S. Anseth, and C.N. Bowman, "Kinetics and Reaction Diffusion in Photopolymerizations of Multiethylene Glycol Dimethacrylates," AIChE National Meeting, San Francisco, CA, November 1994. (Recipient of second place student poster award)
- 283.R. Kannurpatti and C. N. Bowman, "Crosslinked Polymeric Materials for Guided Wave Nonlinear Optics," Optical Society of America National Meeting, Dallas, TX, October 1994.
- 284.K.S. Anseth, M.D. Rothenberg, and C.N. Bowman, "Applications of UV-Vis Spectroscopy to Determine Free Volume Distributions During Polymerizations of Multifunctional Monomers," ACS National Meeting, Washington, D.C., August 23, 1994.
- 285.A.R. Kannurpatti and C.N. Bowman, "In Situ Poling and Polymerization of Doped Multifunctional Monomers for Second Harmonic Generation," ACS National Meeting, Washington, D.C., August 24, 1994.
- 286.K.S. Anseth and C.N. Bowman, "Reaction Mechanisms and Network Structure in Multifunctional Monomer Polymerizations," IUPAC Polymer Networks 94, Prague, Czech Republic, July, 1994.
- 287.P. Smith, P. Todd, and C.N. Bowman, "Continuous Ion Exchange Membranes for Boron Removal and Concentration," AIChE Summer Meeting, Denver, CO, August 15, 1994.
- 288.K.S. Anseth and C.N. Bowman, "Monitoring the Microstructure of Crosslinked Networks with Photochromic Probes," American Physical Society National Meeting, Pittsburgh, PA, March 23, 1994.
- 289.K.S. Anseth and C.N. Bowman, "Reaction Behavior and Kinetics of Multifunctional Methacrylate Photopolymerizations," ACS National Meeting, San Diego, CA, March 17, 1994.
- 290.K.S. Anseth and C.N. Bowman, "Diffusion Effects on the Composition of Copolymers Produced from Vinyl-Vinyl and Vinyl-Divinyl Copolymerizations," AIChE National Meeting, St. Louis, MO, November 8, 1993 (Awarded Best Poster in Polymeric Materials).
- 291.C.M. Wang, K.S. Anseth, and C.N. Bowman, "Kinetics of Multifunctional Monomer Polymerizations," AIChE National Meeting, St. Louis, MO, November 8, 1993 (Awarded Third Best Poster in Engineering Fundamentals).
- 292.M.D. Rothenberg, K.S. Anseth, and C.N. Bowman, "Free Volume Distributions During Photopolymerizations of Multifunctional Monomers," AIChE National Meeting, St. Louis, MO, November 8, 1993 (Awarded Third Best Poster in Materials) .
- 293.A.R. Kannurpatti, J.F. Kasic, and C.N. Bowman, "In Situ Second Harmonic Generation Studies During Multifunctional Monomer Polymerizations," AIChE National Meeting, St. Louis, MO, November 8, 1993.
- 294.B.M. Smith, C.N. Bowman, and P. Todd "Boron Removal from Waste Water Streams Using Fixed-Site Carrier Membranes," AIChE National Meeting, St. Louis, MO, November 8, 1993 (Awarded Second Best Poster in Environmental Engineering).
- 295.M.S. Solis, R.D. Noble, and C.N. Bowman, "Heavy Metal Ion Exchange Using Fixed Site Carrier Membranes," Gordon Research Conference on Reactive Polymers, Ion Exchangers, and Adsorbents, Newport, RI, August 25, 1993, poster.
- 296.K.S. Anseth and C.N. Bowman, "Kinetic Gelation Model Predictions of Gel Point Conversions, Cyclization Rates, and Heterogeneity During Polymerization of Tetrafunctional Monomers," ACS National Meeting, Chicago, IL, August 23, 1993.
- 297.J.F. Kasic and C.N. Bowman, "Photopolymerized Nonlinear Optical Polymers," Materials Research Society Spring Meeting, San Francisco, CA, April 15, 1993.

- 298.K.S. Anseth, C.N. Bowman, and N.A. Peppas, "Photopolymerizations of Multifunctional Methacrylates and Acrylates," AIChE National Meeting, Miami, FL, November 2, 1992.
- 299.C.N. Bowman and N.A. Peppas, "A Kinetic Gelation Simulation for the Analysis of Free Radical Polymerizations," AIChE National Meeting, Los Angeles, CA, November 21, 1991.
- 300.C.N. Bowman and N.A. Peppas, "Kinetics and Modeling of UV Induced Multiethylene Glycol Dimethacrylate Polymerizations," AIChE National Meeting, Los Angeles, CA, November 21, 1991.
- 301.C.N. Bowman and N.A. Peppas, "A Novel Kinetic Gelation Approach to the Simulation of Free Radical Polymerizations of Tetrafunctional Monomers," American Physical Society Spring Meeting, Cincinnati, OH, March 18, 1991.
- 302.C.N. Bowman and N.A. Peppas, "Effects of Physical Aging on Polymerization Kinetics," Materials Research Society Meeting, Boston, MA, November 28, 1990.
- 303.C.N. Bowman and N.A. Peppas, "A Novel Kinetic Gelation Simulation for Analysis of Free Radical Polymerizations of Multifunctional Monomers," AIChE National Meeting, Chicago, IL, November 14, 1990.
- 304.C.N. Bowman and N.A. Peppas, "Kinetics and Volume Relaxation for Polymerizations of Multiethylene Glycol Dimethacrylates," AIChE National Meeting, Chicago, IL, November 14, 1990.
- 305.C.N. Bowman and N.A. Peppas, "Fractal Analysis in Polymer Structures for Information Technology," AIChE National Meeting, San Francisco, CA, November 8, 1989.
- 306.C.N. Bowman and N.A. Peppas, "Kinetics of UV Induced Multiethylene Glycol Dimethacrylate Polymerizations," AIChE National Meeting, San Francisco, CA, November 8, 1989.
- 307.C.N. Bowman and N.A. Peppas, "Preparation and Properties of Novel Methacrylate Based Laser Video Disc Polymers," AIChE National Meeting, Washington, D.C., November 28, 1988.

TEACHING QUALIFICATIONS

Course and Curriculum Information:

Courses Taught with Instructor (I) and Course (C) Evaluations:

Undergraduate Fluid Mechanics (Spring 1992: I 3.37/4.0, C 2.80/4.0 and Spring 1993: I 3.62/4.0, C 3.26/4.0)
Graduate Reaction Engineering (Fall 1992: I 2.71/4.0, C 2.73/4.0; Fall 1993: I 3.48/4.0, C 3.29/4.0; Spring 1995: I 3.23/4.0, C 3.08/4.0; Fall 2007)
Polymer Chemistry (Fall 1993: I 3.88/4.0, C 3.80/4.0; Spring 1996: I 3.57/4.00, C 3.00/4.00; Spring 2002: I 3.55/4.0, C 3.05/4.0)
Polymer Engineering (I 3.60/4.0, C 3.40/4.0)
Photopolymerization Reactions (Fall 1996: I 3.54/4.0, C 3.08/4.0, Fall 1999: I 3.11/4.0, C 3.06/4.0, Fall 2009: Evaluations Not Yet Available)
Polymerization Reaction Engineering (UROP Seminar Course, Spring 1994: I 4.0/4.0, C 3.83/4.0)
Undergraduate Reaction Engineering (Fall 1994: I 3.43/4.0, C 3.07/4.0, Fall 1997: I 3.63/4.0, C 3.29/4.0, Fall 1999: I 3.50/4.0, C 3.36/4.0)
Freshman Chemistry for Engineers taught to more than 300 students (Fall 1995: I 2.65/4.0, C 2.77/4.0, Fall 1996: I 3.11/4.0, C 2.82/4.0, Fall 1997: I 3.09/4.0, C 2.74/4.0; Fall 2007: I 4.9/6.0; C 4.2/6.0)
Biology for Engineers (Spring 2003: I 3.83/4.0, C 3.75/4.0)

Curriculum Development:

Significantly revamped Chemistry for Engineers as a part of the College Diversity Plan and Improved FCQ evaluations, Fall 2006 and Fall 2007
Developed a new course – Biology for Engineers, Spring 2003
Assisted Prof. Kristi Anseth in the Development of a new Course on Polymer Engineering (First Taught Fall 1998)
Developed a new Course on Photopolymerization Reactions (First taught Fall 1996)
Developed a Materials Option for Undergraduate Chemical Engineering Students who wish to develop a specialization in the Materials Science Area; option advisor since Fall 1993
Developed a new course on Polymer Chemistry (First taught Fall 1993)
Was Selected to Teach Research Seminar Class Entitled, "Reaction Engineering for Free Radical Polymerizations," Spring 1994

Research and Independent Study Advisees

Post-Doctoral Associates and Visiting Scholars Supervised and Worked With:

Tao Gong, June 2011 – present
 Diana Leing, July 2010 – present
 Brad Berron, Spring 2008 – August 2011
 Kathleen Schreck, June 2007 – August 2010
 Christopher Kloxin, June 2006 – June 2011
 Jing Yang, October 2005 – December 2007
 Michael McKittrick, April 2005 – August 2006
 Sirish Reddy, January 2005 – August 2006
 TaeYeon Lee, December 2004 – February 2007
 Lixin Chen, April 2004 – December 2004
 Oguz Okay, July 2004 – December 2004
 Hui Lu, January 2004- March 2006
 Timothy Scott, November 2003 – Fall 2008
 Neil Cramer, August 2003 – present
 Hadley Sikes, February 2003 – July 2007
 Tommy Haraldsson, September 2002 – February 2005
 Bilge Hacıoglu, Visiting Professor, September 1998 – 2002
 Jun Nie, January 1999 – February 2003
 Ning Luo, Visiting Professor, January 1999 – 2002
 Brian Elliott, December 1998 – 1999
 Kristi Anseth, January 1995 - May 1995
 Takeo Yamaguchi (Co-advised with Prof. Richard Noble), April 1993 - May 1995
 David Jackson, January 1993 - August 1993

Graduate Students Supervised:

Kristi S. Anseth, August 1992 - November 1994, **Graduated with PhD**, "Photopolymerizations of Multifunctional Monomers: Reaction Mechanisms and Polymer Structural Evolution" (Currently Howard Hughes Investigator and Tisone Chair at the University of Colorado, Department of Chemical and Biological Engineering)

Minerva S. Solis (Co-Advised by Prof. Richard Noble), January 1993 - May 1994, **Graduated with MS**, "Transport of Heavy Metal Ions Using Fixed Site Carrier Membranes" (Working in Environmental Consulting)

Janet de Grazia, January 1992 - May 1994, **Graduated with MS**, "Settling Characteristics of Microparticles Modified by Hydrophilic Semi-Interpenetrating Networks" (Currently Teaching at the University of Colorado)

James F. Kasic, January 1992 - May 1993, **Graduated with MS**, "Second Harmonic Generation from Doped, Poled Polymers" (Working for Battelle Medical Products in Boulder, CO)

Anandkumar R. Kannurpatti, January 1993 - May 1997, **Graduated with PhD**, "Characterization of Properties and Structural Heterogeneity of Crosslinked Polymers Formed by Living Radical Photopolymerizations" (Currently working as a Research Associate for Cyrel, a division of DuPont, Parlin, NJ)

Bryan Smith (Co-Advised by Prof. Paul Todd), January 1993 - May 1997, **Graduated with PhD**, "Reversible Polymer Complexation for Boron Removal and Concentration with Polymer-Assisted Ultrafiltration" (Currently working as a Research Associate at TDA Research, Golden, CO)

C. Allan Guymon, January 1994 - December 1997, **Graduated with PhD**, "Characterization and Polymerization Behavior of Polymer Stabilized Ferroelectric Liquid Crystals," (Currently working as a Professor at the University of Iowa, Department of Chemical Engineering)

Kristin L. Thunhorst (Co-Advised by Prof. Richard Noble) January 1994 - February 1998, **Graduated with PhD**, "Investigation of Ion Transport and Selectivity Achieved with Crown Ether Fixed Site Polymeric Membranes: Grafting and Photopolymerization Membrane Production Methods," (Currently working as a Research Associate at 3M Corporate Research, St. Paul, MN)

Russell Goering (Co-Advised by Prof. Richard Noble) January 1994 - January 1998, **Graduated with PhD**, "A Mechanistic Study of the Facilitated Transport of Olefins through Silver (I) Based Membranes," (Currently working as a research associate at Santa Fe Science and Technology, Santa Fe, NM).

Michael Goodner, January 1995 - August 1998, **Graduated with PhD**, "Kinetics of Diffusion Controlled Radical Photopolymerizations" (Currently a research associate at Intel, Portland, OR)

Jennifer Young, January 1996 - September 1998, **Graduated with PhD**, (Co-Advised by Prof. Kristi Anseth), "Modeling and Characterization of Reaction Diffusion Enhanced Termination in Crosslinked Polymers" (Currently Staff Scientist with Los Alamos National Laboratories, Los Alamos, NM)

Brian Elliott, January 1995 – December 1998, **Graduated with PhD**, "Pseudocrown Ether Membranes for Ion Separations," (Currently working as a Research Associate at TDA Research, Golden, CO)

Mark Pasmore (Co-Advised by Prof. Paul Todd), January 1995 – May 1999, **Graduated with PhD**, "Membrane Materials for Prevention of Biofouling," Defended M.S. Thesis and Continuing as PhD Candidate (Employed as a Research at Baxter Healthcare, Round Lake, IL)

Lale Lovell, January 1997 – December 2000, **Graduated with PhD**, "Highly Crosslinked Methacrylates as Advanced Dental Materials" (Employed as a Research Associate by Lexmark, Niwot, CO)

Wendy Mores (Co-Advised by Prof. Robert Davis), January 1997 – August 1998, "Development of Photografted Materials for Fouling Resistant Membranes" **Graduated with MS**

Huimin Ma (Co-Advised by Prof. Robert Davis), May 1997 – December 2000, **Graduated with PhD**, "Development of a Novel Photografting Technique for Membrane Surface Modification" (Employed as a Research Associate with Headway Technologies, Milpitas, CA).

Andrew Metters (Co-Advised by Prof. Kristi Anseth), August 1997 – December 2000, **Graduated with PhD**, "Polymerization and Network Structural Evolution of Degradable Networks," (Currently Chief Technology Officer, Selah Technologies, Clemson, SC)

Kathryn Berchtold, January 1997 – December 2001, **Graduated with PhD**, "Impact of Monomer Structure and Termination Kinetics on Free Radical Photopolymerizations" (Currently Staff Scientist at Los Alamos National Laboratory)

Jeannine Gibson Elliott, January 1998 – August 2001, **Graduated with PhD**, "Modeling and Characterization of Cyclization Reactions in Photopolymerization of Multifunctional Monomers" (Currently Research Associate at TDA Research)

Neil Cramer, January 1999 – May 2003, **Graduated with PhD**, "Investigation of Thiol-Ene Photopolymerizations and Their Unique Applications" (Currently a Senior Research Associate, University of Colorado)

Hui Lu, January 2000 – December 2003, **Graduated with PhD**, "Investigation into Polymerization Shrinkage Stress and Development of Novel Dental Resin" (Currently a Research Associate with Caulk Dentsply, Wilmington, DE)

Adam Harant, January 2000 – December 2004, **Graduated with PhD**, "Patterning Organosilane Self-Assembled Monolayers, Block Copolymer Lithography and Thin Film Behavior, and the Photoinduced Formation of Polymer Brushes and Monolayers" (Currently at DisplayTek, Longmont, CO)

Tara Lovestead, January 2000 – December 2004, **Graduated with PhD**, "The Role of Chain Length Dependent Kinetics on Observed Non-Classical Multivinyl Photopolymerization Behavior" (Currently Research Associate, National Institutes of Standards and Technology, Boulder, CO)

Eric Beckel, January 2000 – December 2004, **Graduated with PhD**, “Mechanistic Studies of Enhanced Polymerization Characteristics of Novel Mono (Meth) Acrylate Monomers” (Currently Research Manager, DOD Contracting Firm)

Brian Good, (Co-Advised by Prof. Robert Davis), May 2005, **Graduated with PhD**, “Development of Flow Control Elements for Portable Polymeric Microfluidic Devices” (Currently a Research Associate with Azdel Inc., Cincinnati, OH)

Amber Hofstad Rydholm, (Co-Advised by Prof. Kristi Anseth), January 2001 – May 2006, **Graduated with PhD**, “Photopolymeric Thiol-ene Biomaterials: Controlling Network Structure to Tune Degradation Behavior and Material Properties” (Currently a Research Associate with Hospira, Boulder, CO)

Allison O’Brien, January 2001 – April 2005, **Graduated with PhD**, “The Impact of Oxygen on Photopolymerization Kinetics and Polymer Structure” (Currently a Research Associate with Thermo Fischer Scientific, Colorado)

Robert Sebra, (Co-Advised by Prof. Kristi Anseth), August 2001 – Fall 2005, **Graduated with PhD**, “Design and Application of Chemically and Biologically Active Surface Graft Architectures Using Living Radical Photopolymerization Chemistry” (Currently a Research Associate with Pacific Biosciences, San Francisco, CA)

Helen Simms, (Co-Advised by Prof. Kristi Anseth), December 2002 – February 2009, **Graduated with PhD** “Polymer Microfluidic Devices for Bioanalysis”

Sirish Reddy, December 2001 – December 2004, **Graduated with PhD**, “Mechanistic Modeling, Network Evolution, and Advanced Applications of Novel Thiol-Vinyl Systems” (Currently a Research Associate at Novellus)

Jacquelyn Carioscia, December 2002 – December 2006, **Graduated with PhD**, “An Investigation into the Impact of Thiol-ene Chemistries on the Material Properties of Controlled Thiol-ene Polymerizations” (Currently an Associate with URS Washington Division, Denver, CO)

Peter Johnson, December 2002 – January 2007, **Graduated with PhD**, “Parallel Evaluation of Photopolymerizations” (Currently at NIST Gaithersburg, MD, Polymer Division)

Harini Kilambi, December 2002 – May 2006, **Graduated with PhD**, “Novel Monomer Reactivity and Mechanisms” (Currently at Intel, Portland, Oregon)

Vaibhav Khire, December 2003 – April, 2008, **Graduated with PhD**, “Surface Modification Using Thiol-Ene and Thiol-Acrylate Polymerizations” (Currently at Intel, Portland, Oregon)

Ryan Hansen, December 2003 – December 2008, **Graduated with PhD**, “Development of Polymerization-Based Signal Amplification for Detection of Biomolecular Recognition” (Currently on Short-Term Mission Trip in Georgia)

Leah Johnson, May 2004 – November 2009, **Graduated with PhD**, “Polymerization Based Amplification of Dilute Biochemical Reactions”

MacKinley Lawson (Co-Advised by Prof. Kristi Anseth), August 2004 – June 2008, **Graduated with PhD**, “Structure-Function Relationships of Polymerizable Vancomycin Derivatives for the Antimicrobial Surface Modification of Orthopedic Biomaterials” (Currently completing Residency for MD/PhD program)

Heather Avens, December 2004 – November 2009, **Graduated with PhD**, “Photopolymerized-Based Detection of Cancer” (Presently Post-doctoral Associate at the University of Colorado)

Ben Fairbanks (Co-Advised by Prof. Kristi Anseth), August 2004 – December 2009, **Graduated with PhD**, “Photochemical Reactions for Biomaterials Development: Thiol-ene and Thiol-yne Polymerizations” (Currently Post-doctoral Associate at the University of Colorado)

John Ashley (Co-Advised by Prof. Robert Davis), September 2004 – present, “Nano-chip Design Using Microfluidic and Photopolymerization Techniques”

Brian Adzima, December 2006 – December 2011, **Graduated with PhD**, “Cyclopolymerizations and Click Reactions”, Post-Doc at Carnegie Mellon University, starting January 2012

Sheng Ye, August 2007 – September 2011, **Graduated with PhD**, “Advanced Modeling and Characterization of Thiol-ene Photopolymerizations”, Research Associate at 3M

Heeyoung Park, December 2007 – May 2011, **Graduated with PhD**, “Stress Relaxation Mechanisms in Crosslinked Polymers”, Research Associate at Samsung

Devatha Nair (co-advised with Prof. Robin Shandas), June 2008 – present, “Dual-Cure Polymers for Opto-electronic and Shape Memory Applications”

Raveesh Shenoy, December 2007 – present, “Glucose Oxidase Mediated Polymerizations for Interfacial Coatings and Polymerization”

Megan Cole, December 2008 – present, “Development of Thiol-Ene Based Dental Impression Materials”

K. Christopher Koehler, December 2008 – present, “Self-Replicating Polymers”

Weixian Xi, April 2011 – present, “Thioether Nucleic Acids”

Shunsuke Chatani, September 2011 – present, “Dual-Cure Polymerizations”

Eduardo Marquez-Castro, January 2011 – present, “Mechanically Assisted Photolithography”

James Wydra (co-advised with Prof. Jeffrey Stansbury), January 2011 – present, “Modeling and Characterization of Property Evolution in Photopolymerized Films”

More than 150 Undergraduate Students have Worked in the Bowman Laboratories - Undergraduates Working in the Bowman Laboratory have gone to numerous companies including Dow, Amoco, TDA Research, Atmel, Amgen, Syntex, Los Alamos National Laboratories and to graduate schools across the country.

UNIVERSITY, PROFESSIONAL, AND PUBLIC SERVICE ACTIVITIES

University Service:

Energy Initiative Steering Committee (Fall 2008 – present)
 Associate Dean for Research (August 2007 – present)
 Department Chair (Fall 2003 – Summer 2007)
 Chair, Faculty Search Committee (numerous occasions)
 Graduate Admissions Committee (Fall 2003)
 Member, Administrative Council (Fall 2003 – present)
 Graduate School Executive Advisory Committee (Fall 2000 – Spring 2003)
 Graduate Program Director (Fall 1993 – Fall 1996, Fall 1999 – Fall 2001, Fall 2002 – Spring 2003)
 Graduate Student Advisor (Fall 1993 – Fall 1996, Fall 1999 – Spring 2003)
 Department Executive Committee (Fall 2000 - present)
 Strategic Futures Council, College of Engineering (Fall 1999 – Fall 2000)
 Dean's Search Committee (Fall 2000 – Spring 2001)
 Graduate Fellowship Subcommittee (Fall 2000 – Spring 2003)
 Materials Option and Undergraduate Student Advisor (Fall 1993 - present)
 Program Review Committee (Fall 1996)
 AIChE Faculty Sponsor (Spring 1992 - Spring 1996)
 Assistant Safety Director (Spring 1992)
 Undergraduate Lab Renovation Committee (Spring 1992)
 Centennial Celebration Committee (Fall 1992 - September 1993)
 Faculty Search Committees (Numerous Occasions)
 Integrated Teaching Laboratory Committee for Mechanics and Materials (Spring 1993 - Fall 1994)
 Developed Materials Option for Chemical Engineering (Spring 1993)
 Developed New Course: CHEN 4838/5838 Polymer Chemistry
 Developed New Course: Graduate Level Photopolymerization Reactions
 Revised Existing Course Outline for CHEN Materials
 Dean's Small Grant Award Committee (Numerous Times)
 Patten Chair Search Committee (Fall 1994)

Professional and Public Service:

Organizer and Chair, Polymer Networks 2012 Meeting, Summer 2012, Jackson Hole, WY
 Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2011, Breckenridge, CO
 Chair, Engineering Research Council Awards Committee, 2009 - present
 Editorial Board, Chemistry of Materials, 2011-2014
 Board of Directors, ASCE Engineering Research Council, 2009-2011
 Organizer, ACS Tess Award Symposia to Honor Christian Decker, Fall 2009, Washington D.C.
 Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2009, Breckenridge, CO
 Organizer, American Chemical Society Symposia on Polymerizations in Nanostructured Environments, Spring 2009, Salt Lake City, UT
 Board of Consulting Editors, AIChE Journal, 2009 - 2014
 Editorial Board, Cambridge Series in Chemical Engineering, 2008 - 2011
 Session Co-Chair, MRS 2007 Fall Meeting, "Biological and Biomimetic Networks," November 2007, Boston, MA
 Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2007, Breckenridge, CO
 Session Chair, IUCRC Update at 2006 UV & EB Technology Expo & Conference, April 2006.
 Session Chair, "Hydrogels I," 28th Australasian Polymer Symposium, Rotorua, New Zealand, February 2006.
 Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2005, Breckenridge, CO
 Editorial Board, *Journal of Macromolecular Science, Pure and Applied Chemistry*, Fall 2004– Summer 2008
 Chair ACS Symposium "Advances in Photopolymerizations" ACS National Meeting, Fall 2004, Philadelphia, PA
 Taught one day short course on "Photopolymerization Reactions" at Radtech National Meeting, May, 2004
 Director, Materials Division of the American Institute of Chemical Engineers, November 2003 - present
 Session Chair, "Dental Materials: Polymer Materials-Chemistry," International Association for Dental Research 82nd General Session, Honolulu, HI, March, 2004
 Session Chair, "Polymer Networks," 26th Australasian Polymer Symposium, Noosa, Australia, July, 2003.
 Session Chair, "Dental Materials: V – Polymer Materials--Chemistry Program," International Association of Dental Research Annual Meeting, San Antonio, TX, March, 2003.
 Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2002, Breckenridge, CO

Participant, workshop and summer school on Free Radical Polymerization Methods, 25th Australasian Polymer Symposium, Armidale, Australia, February, 2002.

Committee Chair, "Biomedical and Chemical Engineering Panel," 2001 NSF Graduate Research Fellowship Panel, February, 2001

Program Co-Chair, Division of Polymer Chemistry, Fall 2000 – Fall 2003

Co-chair, AIChE Annual Meeting, 1999

Editorial Board, *Polymer Reaction Engineering*, January 1997 – 2004

Assistant Editor, *Polymer Preprints*, Summer 1996 – Fall 1999

Chair Symposium "Polymers and Liquid Crystals" at the ACS National Meeting

Chair Session "Polymerization Reaction Engineering: Applications," at the AIChE National Meeting, November 1997

Co-Chair Symposium "Chemical Reactions on Polymers" at the ACS Fall National Meeting, August 1996

Chair Symposium "Unilever Award Symposium to Honor Kristi Anseth" at the ACS Fall National Meeting, August 1996

Co-Chair Symposium "Recent Advances in Photopolymerizations: Applications and Fundamentals" at the ACS Spring National Meeting, 1996

Chair of Rocky Mountain Section of AIChE, 1995-1996

Chair Session "Polymerization Reaction Engineering: Applications" AIChE National Meeting, November 1995

Co-Chair Session "Polymerization Reaction Engineering: Fundamentals" AIChE National Meeting, November 1995

Chair Session "Young Faculty Forum" at the AIChE National Meeting, November 1995

Chair Session "Proposal Writing Workshop" at the ASEE National Meeting, June 1995

Vice-Chair of Rocky Mountain Section of AIChE, 1994-1995

Co-chaired Session "Young Faculty Forum" at the AIChE National Meeting, November 1994

Co-chaired Sessions on "Preparation and Physicochemical Characterization of Hydrogels" Spring American Chemical Society National Meeting, Denver, CO, March 1993.

Co-Taught one-day short course on "Photopolymerizations" at Radtech National Meeting, April 2000, 2002, 2004

Taught three day short course "Photopolymerization Reactions" at 3M Company, January 1998

Taught short course "Frontiers in Polymer Science: Polymer Preparation, Properties, and Structure," June 22 - June 26, 1992, Indianapolis, IN, Course taught with three other instructors.

Taught short course "Macromolecules and Polymers of Pharmaceutical Interest," Part of the First International Advanced Course on Technology and Control of Drugs in Perugia, Italy, August 2 - August 7, 1992.

Fellowship Panel and Reviewer for National Science Foundation

Reviewed Papers for *Journal of Polymer Science*, *Biomaterials*, *Journal of Applied Polymer Science*, *Macromolecules*, *AIChE Journal*, *Liquid Crystals*, *Polymer*, *Science*, *Nature Materials*

Consultant for Baker and Botts Law Firm, Biogel Technology, Lightseam Technologies, Elantec Medical, Rocky Mountain Medical Physics, Alcon, Mentor , 3M, Ciba, AET Films, Millipore, Vitex, Henkel, Johnson and Johnson, SRI, Bridgestone, Mayer Brown LLP.